Partnering for Progress

BIRD: 30 Years of Collaboration 1977 - 2007



Israel-U.S. Binational Industrial Research and Development Foundation

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Eitan Yudilevich, Ph.D.

Executive Director, BIRD Foundation
Tel-Aviv, June 2007

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Dr. Eli Opper

Chief Scientist, Israel Ministry of Industry, Trade and Labor

Marc G. Stanley

Director, Advanced Technology Program, National Institute of Standards and Technology (NIST), U.S. Department of Commerce

We are delighted and honored to join in the 30th anniversary celebration of the BIRD Foundation. On occasions like this, it is both appropriate and important to reflect upon the many past successes and look forward to new challenges that await your participation.

The BIRD Foundation has played a major role with U.S. industry in championing the importance of public-private partnerships to enable innovation and competitiveness in both our countries. By fostering an environment of cooperation and collaboration, Israeli and U.S. companies have been able to move exciting new technologies from mere concepts in a lab to products that strengthen our countries' positions in an increasingly competitive global setting. Most importantly, the successes of our joint efforts have translated great ideas into tangible goods that improve the lives of our citizens every day in very real ways.

The BIRD Foundation has been a role model in establishing a network of bilateral R&D foundations and agreements between Israel and other countries around the globe. So we pause briefly to enjoy BIRD's successes and anticipate getting back to work establishing partnerships between the United States and Israel that will make the 50th anniversary celebration even more spectacular!

Thank you again for inviting us to join in this occasion with you.

Ambassador Tom Pickering

Former U.S. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs and Member of the Board of Governors 1978 – 1980

I had the pleasure of being a Member of the Board of Governors of the BIRD Foundation in the early years of its development and then was able to watch the Foundation and its accomplishments as U.S. Ambassador to Israel from mid-1985 until the end of 1988.

In the 1970's and early 1980's the Foundation made superb choices of projects, a number of which led to real success.

It was an interesting time for someone with primarily diplomatic credentials to serve on the board. I was lucky to have had an interest in science and engineering which served me well in my efforts to understand the projects, their potential and the pay-off.

Taking basic ideas with committed Israeli and American partners and turning them, through the industrialization phase, into successful commercial projects was not easy, but this was the hallmark of BIRD's success.

May it continue to go from strength to strength over the next 30 years.

HISTORY

An Historical Overview In Perspective – pre-1977

The Israel-United States Binational Industrial Research and Development Foundation – BIRD – was formally established on May 18, 1977 with an endowment of \$60 million; \$30 million from each country to support and promote joint non-defense industrial research and development for mutual benefit. In 1984, the endowment was increased to \$110 million.

The genesis of the BIRD Foundation dates back to July 1974, when the governments of the United States and Israel established a joint Committee for Investment and Trade, staffed by representatives of the two governments. Its task was to find ways to promote closer economic ties between the two nations, with discussions being held throughout 1975 and early 1976. The initial agreement to establish the Foundation was signed by U.S. Secretary of the Treasury William Simon and by Israel Finance Minister Yehoshua Rabinowitz, on March 3, 1976.

In February 1975 a private sector group had been formed to promote closer links between U.S. and Israeli scientific and technological enterprises. This group, composed of leading research and development executives from both U.S. and Israeli industry, was instrumental in providing advice and support to the Joint Committee during negotiations for the establishment of the Foundation.

As discussions continued between the two governments, another significant private sector initiative was taking place. The Committee for the Economic Growth of Israel (CEG-I) was formed during March 1976, as an autonomous, voluntary

organization of American and Israeli business people who joined forces to promote exports and investment in Israel.

Working through a network of local task forces of business people in various United States communities, CEG-I began to seek out American firms willing to cooperate with Israeli companies for mutual benefit.

The private sector again showed its support for cooperation between Israeli and U.S. firms with the Israel-U.S. Business Council, composed of top executives of Israeli and U.S. industrial corporations holding its inaugural meeting in June 1976.

The U.S. Section was headed by the Honorable George W. Romney and the Israeli Section by Mark Mosevics, Board Chairman of Elite Ltd. The Council visited Israel and returned with a series of proposals and suggestions for joint cooperation between American and Israeli firms.

In late April 1977, the U.S. Congress passed the legislation providing the funding for the Israel-U.S. Binational Industrial Research and Development Foundation. This was signed into law by President Carter on May 4, 1977. At the same time the Knesset, Israel's parliament, authorized the funding of the Israeli portion of the Foundation's endowment.

The Foundation was formally established in a ceremony in Washington D.C. on May 18, 1977, with the exchange of letters between Assistant Secretary of the Treasury Bergsten and Ambassador Dinitz.

The Inaugural Meeting

Held in July 1977, Department of Commerce, Washington D.C., attended by the Board of Governors of the Foundation and advisors. Members of the Board of Governors were:

For the United States:

- Dr. Jordan J. Baruch, Assistant Secretary of Commerce for Science and Technology
- Dr. C. Fred Bergsten, Assistant Secretary of the Treasury for International Affairs
- Patsy T. Mink, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs

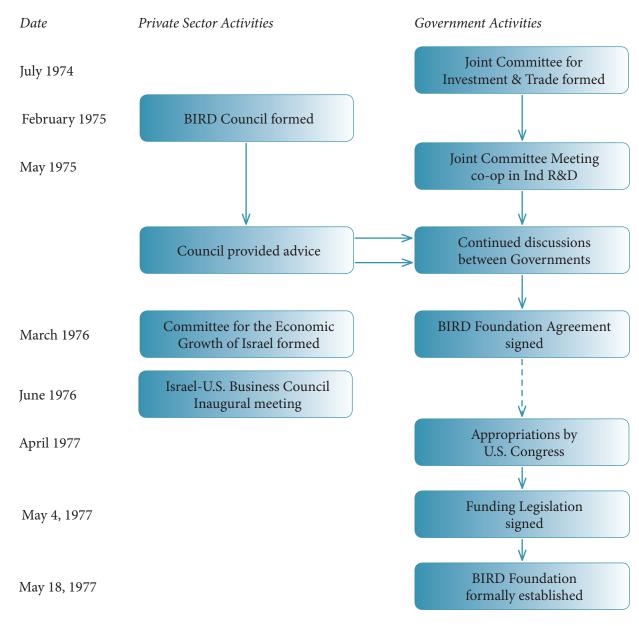
For Israel:

- Dr. Moshe Mandelbaum, Director General of the Ministry of Industry, Trade and Tourism
- Amiram Sivan, Director General of the Ministry of Finance
- Professor Itzhak Yaakov ("Yatza"), Chief Scientist of the Ministry of Industry, Trade and Tourism

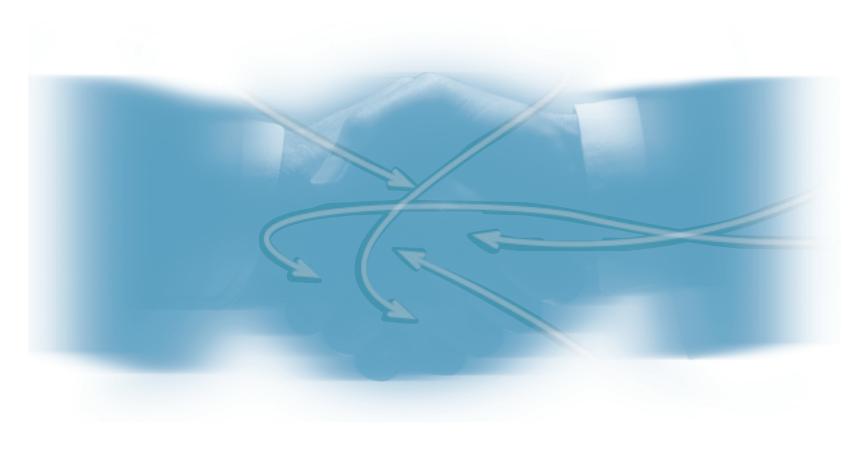
Professor Yaakov was elected as Chairman of the Board; A. Wade Blackman, Jr. was elected as the first Executive Director of BIRD.

In 1979, Dr. Ed Mlavsky, who was a Member of the BIRD Council prior to the inception of the Foundation, became the Executive Director of BIRD. Under his leadership, BIRD became a pillar of the emerging hi-tech industry in Israel.

Historical Development of the BIRD Foundation



HISTORY



1977 - A Year of Wonders

The World as it Was

In ancient times, events coinciding with a person's birth were studied for auspicious signs and portents which it was believed foretold that person's future – how he or she will fare in life; whether they will achieve fame and fortune, will they find true love, will they be victorious in battle, will they achieve greatness?

What auspicious signs appeared on and around May 18, 1977? This was the day the Binational Industrial Research and Development Foundation – BIRD – was officially brought to life by an exchange of letters between Assistant U.S. Secretary of the Treasury for International Affairs, C. Fred Bergsten and Simcha Dinitz, Israel's Ambassador to the United States.

What was envisioned as the BIRD Foundation emerged from its gestation period of nearly three years of concepts and planning, committee meetings and legal documents?

It makes interesting reading to gaze back 30 years at 1977 – a period that was indeed to become a year of wonders.

On the day immediately before BIRD was signed into life, Menahem Begin became Israel's Prime Minister, breaking the mold of the Labor Party governments which had ruled since the founding of the State.

It was to be less than a year before Egypt's President Anwar Sadat broke another mold...the Arab world's total rejection of Israel, when he visited Jerusalem, declared peace and subsequently– together with Begin – won the Nobel Peace prize the following year.

America was also under a new administration, with Jimmy Carter having been inaugurated as the 39th President just a few months earlier.

It was the very early days of the Hi-tech Revolution; the massive and rapid development of advanced technology which would surpass the Industrial Revolution of the 18th Century for the way it changed modern man's daily life: the way we think, work, conduct business, communicate, learn, entertain ourselves, maintain our health, fight wars and protect ourselves.

Given the BIRD Foundation's main purpose in life – "to support and promote joint non-defense industrial research and development activities of mutual benefit to the United States and Israel" – it is interesting to take a look at the state of technology generally, the level of business activity in Israel at the time and at the lifestyle of 1977:

- Only 55 percent of all Israeli firms employed more than five people
- Only about 250 fair-sized companies were engaged in any aspect of industrial research and development
- Only three economic sectors electronics, transportation and chemicals – showed a total scientific, technical and academic employment of more than 400 staff members

Technologically speaking, we were literally in the dark ages of hi-tech. Products and systems that we so commonly use today, were still in the realm of Science Fiction.

The "state-of-the-art" computer in 1977 was probably the Commodore PET 2001, launched in January of that year, just ahead of the Apple II. It boasted a keyboard with a separate numeric pad (almost completely unheard of at the time, even as an option); a 9" integrated Blue and White monitor; 4K of memory; a real storage device (cassette tape); upper and lower case text (you could have text OR graphics on the screen, but not both at the same time) and an operating system that was burned onto ROM and loaded on boot-up. It sold for \$795.00.

The Apple II had a color display – but only 6 colors mind you; and the 4K RAM version sold for \$1,298.00.

In telephony, the first fiber optic cable had been manufactured in 1977, paving the way for a new industry. Telephones were still generally rotary dialers, with touch-tone dialing becoming available...oh, and you could order telephones in different colors...! In a revolutionary move, Motorola, (which was to become involved with BIRD some years later) announced that its nascent cellular phone technology was being used in a developmental program in the Baltimore-Washington area.

It had announced some years earlier that its revolutionary portable phone "which weighs less than 3 lbs" would be available by the end of the '70s.

Here is a further glimpse at the lifestyle and major events of 1977:

• The cost of a movie ticket is \$2.23, while gas is 62 cents a gallon. A first class postage stamp is 13 cents.

- The New York City Blackout of 1977 lasts for 25 hours, resulting in mass looting – and a baby boom nine months later!
- The New York Yankees win the World Series.
- Atari develops the Game Brain the first Atari system to use cartridges. Cinematronics releases Space Wars, the first vector-graphics arcade game. Mattel releases Missile Attack, the first handheld LED display electronic game.

On the diplomatic front, President Jimmy Carter demonstrated unwavering support for Israel.

At a Press Conference on his return from London just a few days before BIRD was officially launched, he stated: "We have a special relationship with Israel. It's absolutely crucial that no one in our country or around the world ever doubts that our number one commitment in the Middle East is to protect the right of Israel to exist; to exist in peace. It's a special relationship."

It is perhaps a combination of all these things that, with the value of hindsight, foretold BIRD's future – a future in which it would play a leading role in the development of hi-tech industries both in Israel and the United States: a future in which it would become one of the key motivators in the growth of industries which today produce the components for the personal computers, cell phones, medical devices and pharmaceuticals, security and surveillance equipment and entertainment systems, without which we would find life extremely strange and tiresome.

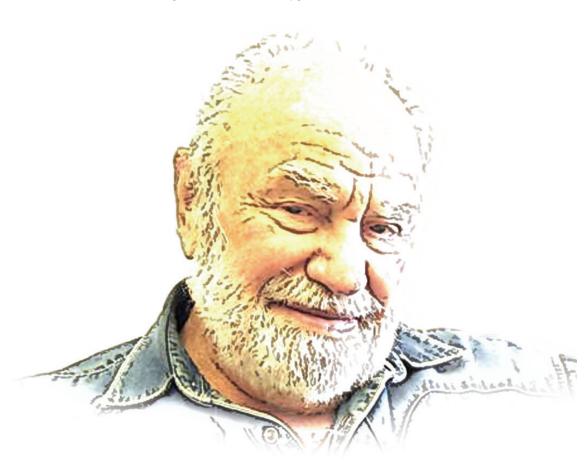
We can only guess at the sophistication of the products and systems which will play a major role over the next 30 years...

Diving, Barking Dogs and BIRD

A group of people sits around a camp fire in the desert; the velvet night sky is bejeweled with stars, strong Arabic coffee is brewing in the "finjan"*, the Red Sea laps at the shore...

What better genesis could there have been for the BIRD Foundation?

That group consisted of Israel's Chief Scientist, Itzhak Yaakov, and Dr. Betsy Ancker-Johnson, U.S. Assistant Secretary for Science and Technology together with two bodyguards.



Prof. Itzhak "Yatza" Yaakov

Israel's First Chief Scientist, 1974 – 1977; First Chairman of the Board of Governors It's late 1975 and Dr. Ancker-Johnson had been invited to Israel by Prof. Yaakov – known to all as "Yatza" – to discuss the formation of an organization to commercially connect both Israel and the United States. They were in Sharm el Sheik (then in Israeli hands) for a day's diving in the fabled Red Sea as a break from the deliberations. Dr. Ancker-Johnson was a keen diver; "Yatza" was the head of Israel's diving association.

"At one point Betsy turned to me and asked where things were going with the discussions: I said 'You'd better call Washington. So she went to the only hotel in Sharm el Sheik at that time and placed a call to her office. It had to go via the Israeli naval base in Sharm, then through Haifa and eventually to the States.

"I was waiting at the camp site and then I heard a commotion from the hotel; I rushed up and there was Betsy, surrounded by 15 barking, ferociouslooking Bedouin dogs. I called them off as I knew they wouldn't actually attack her. But after her incident with the sharks earlier in the day, and now the ferocious dogs, how could she possibly ignore what was to become BIRD?"

The concept of BIRD originated with "Yatza", who tells that he cooperated with Abraham Agmon, then Director General of the Ministry of Finance. This novel idea included equal financial contributions from each side.

"We needed to create a foundation that would connect Israel and the United States commercially. The idea was easy but the debate centered on just how this kind of international foundation would work," he recalls. "It centered on who holds control of the technology and the intellectual property.

"We were finally able to come to an understanding and the BIRD Foundation came to life. Many American companies were interested in Israel, but I couldn't understand why the American companies wanted funds from BIRD; it seemed that they hardly needed the money. They were obviously more interested in the technology and know-how."

While the very early days – in fact "pre-BIRD" days – seemed to be filled with drama, how does "Yatza" see the future?

"The model worked well in the past but I am not so sure I should speculate on the future.... However, if I were a lot younger, I would be studying Chinese. The new frontiers are in the Far East and I would like to see BIRD become a bridge for introductions within China and Hong Kong."



Could a Hammerhead Shark have determined BIRD's Future?

A scuba diving expedition to the Sinai in the midseventies may well have sealed the fate of the BIRD Foundation years before it was established. Had a school of Hammerhead sharks been particularly hungry that day, there may not have been a BIRD Foundation at all.

This "what if" scenario was suggested by the experience of Dr. Betsy Ancker-Johnson, who as Assistant Secretary for Science and Technology in the U.S. Department of Commerce at the time, visited Israel in 1975 to discuss the needs and potential of the Foundation.

Being a keen diver, she was invited by Professor Itzhak Yaakov, then Israel's Chief Scientist – and Head of the Israel Divers Association – to go scuba diving off Sharm el Sheik, then still in Israeli hands after the Yom Kippur war.

Dr. Ancker-Johnson relates that she, Professor Yaakov and a group of his colleagues drove by jeep into the Sinai desert and with no signs or any indications at all arrived at a renowned diving spot far to the south.

"We suited up and then swam out 400 or 500 meters to what they called the 'Hole'. It was magnificent, but then I saw dozens of Hammerhead sharks very close by... I was extremely nervous, but I just put my faith in the knowledge that the Israelis wanted this deal and wouldn't let anything happen to me...."

She relates that when the dive was over she asked Prof. Yaakov about the sharks: "He just laughed and said a hammerhead shark has never been known to attack a human. I said he could have told me that before we went into the water..."

It was actually the love of diving that created a bond between Dr. Ancker-Johnson and BIRD in the first place. She recalls:

"I first met Prof. Yaakov in September of 1974 when I attended a meeting of a joint Israel-U.S. trade committee in New York. During the lunch break, Prof. Yaakov – who I had never met before – came over to me, produced a slide viewer, and showed me a set of the most magnificent color slides taken in the Red Sea. I was hooked, but I never figured out how he knew I was a keen diver."

Dr. Ancker-Johnson was the highest ranking civilian scientist in the U.S. Government – and the first woman Presidential appointee in the U.S. Department of Commerce. She served under William Simon, Secretary of the U.S. Treasury, who was a key figure in the early planning for the Foundation.

She went on to work for General Motors and was appointed as a VP in charge of their safety and environmental control division – again, the first woman to be appointed to such a high position in the motor industry. She retired in 1992.

Although she has not been involved with the BIRD Foundation since those early days, she has always been curious about its progress.

"I'm delighted to hear it has done so well," she said.

What does the next 30 years hold for BIRD?

"They should concentrate on promoting Nanotechnology," she says.

"It will appear in a lot of commercial products in a

relatively short time and has so many applications –from paste to bio-medical - if I were a young person I would be looking into nanotechnology as a career path.

"I think we'll see a lot of applications in health which will tend to make us live longer and more healthily. There should be very fundamental changes in the way we use energy and the resources and hope that fusion will see most important progress."

Although retired, Dr. Ancker-Johnson still serves in an advisory capacity in the Engineering Faculty at the University of Austin, Texas.



Dr. Betsy Ancker-Johnson

Former U.S. Assistant Secretary for Science and Technology

How I Nearly Ended up Living In Israel

Putting together an inter-agency task force in the U.S. to work with Professor Itzhak Yaakov in getting the BIRD Foundation established, is what started Dr. David Chang thinking about living in Israel and working for the Foundation.

"It never happened, but it's intriguing to think of what might have been," he said while discussing the formative role he played in the early years prior to the Foundation's official establishment.

As Deputy Assistant Secretary for Science and Technology, Dr. Chang worked as assistant to Dr. Betsy Ancker-Johnson, then Assistant Secretary for Science and Technology.

"Prof. Yaakov was focused on trying to put together what he thought was of primary interest for Israel: to get the universities involved with industries and developing non-defense related industries.

"Israel had some industrial institutes at the time, but none of the universities were really interested in industry. Prof. Yaakov tried to change that.

"On the project side of things, the intent at that time was to focus on projects that were pretty close to the commercial stage – to come to fruition within one to three years."

Dr. Chang relates that once the Foundation was up and running he had even considered going to work for BIRD in Israel.

"It was a tempting idea but one that never really got anywhere...it's intriguing to think what might have happened had he gone through with it."

Looking to the future Dr. Chang said that if BIRD were starting afresh today he would like to see more

done in the area of alternative energy sources. He also believes that Israel could play a major role in bringing collaborative information technology projects to other countries. It would be great if there was collaboration with Arab countries and Israel could take a lead in this area..."

Dr. Chang works as a consultant and is based in the Los Angeles area.



Dr. David Chang

Former Deputy Assistant Secretary for Science and Technology

"Non Illegitimati Carborundum!"

The sense of general accomplishment and survival is what characterizes the BIRDF for, Jordan J. Baruch Member of the Board at the inaugural meeting.

Looking back on 30 years of achievement, Dr. Baruch, who served as a U.S. advisor to the Foundation until 2005, believes it has lived up to its expectations exceptionally well.

"BIRD has grown and adapted to changing times to maintain its relevance and excellence," he said. But if BIRD were to be established today, he recommends a wider international focus.

The way forward is to keep adapting and embracing the Latin motto: "Non illegitimati carborundum..." which translates into the pithy phrase: "Don't let the b...s grind you down!" in other words – don't be daunted by formidable (and often deceitful) criticism or stumbling blocks placed in your way.

Dr. Baruch first became interested in the BIRD Foundation when the U.S. committee concerned with Science and Technology in Israel approached him in the mid-seventies.

"I was enthusiastic, both governments were enthusiastic and working with the Treasury, we got the whole thing going," he recalls.

The Foundation's major success, he believes, is due to the many Executive Directors who have guided the organization over the years.

But he also believes that team effort is most important. In an article he wrote recently titled "Combating Global Warming while Enhancing the Future," in his capacity as Senior Scholar of the National Academy of Engineering, Dr. Baruch

quotes American essayist and poet Ralph Waldo Emerson as advising:

"There is no limit to what can be accomplished if it doesn't matter who gets the credit."

Dr. Baruch quips: "He summed it up best – so let's get on with it!"



Dr. Jordan J. Baruch

Former U.S. Assistant Secretary for Science and Technology; Board Member at the Inaugural Meeting

Necessity is the Mother of Invention

It was probably the Arab boycott and President Charles de Gaulle who were most responsible for the creation of the BIRD Foundation noted Dr. Yossi Vardi, one of Israel's leading entrepreneurs.

Nobody wanted to do business with Israel at that time, he recalls. "We were desperate to get Americans to invest in Israel and knew we had to take drastic measures. The Arabs and the French had boycotted Israel, and we had to find a way – quickly – to get local industry moving. Now we know who we have to thank...

"We were three Israelis working on the problem

– Eitan Raff, the Economic Minister at the Embassy in Washington D.C., Israel's first Chief Scientist, Itzhak Yaakov ("Yatza") and me, as the North-American Director of the Investment Authority," he said. "We then needed some kind of model. The BSF (Binational Science Foundation) already existed. And BIRD was based on this. It was a visionary model, enabling government to give these



Dr. Yossi Vardi

Former North-American Director of the Israel Investment Authority

new and risky ventures a kick-start but then allow the private sector to take over.

"There were no venture capitalists then. BIRD is actually a precursor of the venture capital funds that would come along much later. We hoped that this model would lure established American hi-tech companies to invest in Israel. It was important to focus on Israeli innovativeness and our wish list included support for new technologies like electronics and software."

The first meeting was held at Logan Airport in Boston, Massachusetts with Wade Blackman who was the Executive Director of BIRD.

"There is no other country in the world that has more companies in partnership with American companies than Israel. One of the best features of the BIRD model is that government gives the project a kick-start but then allows the private sector to take over." He added.

BIRD is still relevant today, he concludes. It is one component in the financial scheme that start-ups need, like "angels" and IPOs. In addition, BIRD is an incentive to bring companies together.

Yossi Vardi is one of Israel's hi-tech veterans with 37 years of founding and helping build some 40 hi-tech companies. Dr. Vardi has backed some of Israel's leading internet companies. He is the founding investor and the former chairman of Mirabilis Ltd., the creator of the highly popular instant messaging program ICQ and the chairman of International Technologies, which is engaged in private hi-tech investments for its own account. He has the Prime Minister's Israel High Tech Award for Life Achievement, Entrepreneur of the Year and the Rominisiaru prize for Economics from Tel Aviv University.

Help from Friends

After the Yom Kippur War of 1973, weary soldiers like Eitan Raff, just wanted to go home. But duty continued to call and he found himself taking up arms once again – this time in Washington, in the battle for funds.

"I didn't really want to go to America. I had been gone a long time already because of the Yom Kippur War and all I wanted was to go home. But Minister Rabinowitz and Dan Halperin were insistent. They said to me – '...look we need you there; we need you to go...' My wife supported it and we were on our way...."

That is how Eitan Raff, today Chairman of the Board of Bank Leumi, found himself in America in 1974.

"Israel had lost a whole year's 'salary' – GNP – in this war. Where and how were we going to make up this deficit? How could we get ahead? What could we do and what did we need from the Americans?" he added.

"At the time, Yossi Vardi was stationed in New York He introduced me to Itzhak Yaakov, 'Yatza', Israel's first Chief Scientist. We became a team. 'Yatza' was the one who came up with the idea of BIRD. Here was an opportunity to do something that would be mutually beneficial...we wanted the Americans to have something riding on this as well.

"We had to capitalize on the best raw material available in Israel – our brainpower and our ability to innovate."

He continued: "Yossi, 'Yatza' and Eitan worked in Washington to prepare a draft of the proposal for presentation to the Americans. Ambassador Simcha Dinitz was also very supportive and instrumental in getting to the right decision makers.

"BIRD came into being because of a lot of people who believed in the project; like Dr. David Chang, Senator Henry 'Scoop' Jackson, political advisor Richard Pearle and others who were instrumental in making this a reality," he concluded.



Eitan Raff

Former Economic Minister, Israel Embassy in Washington, D.C. 1974-1979

Focus, Focus, Focus

Like Moses leading the Hebrews out of slavery, Uzia Galil has led Israeli technology into the 21st century. Already a pioneer in 1962 when he established Elron, he is still – at 80-years-old – at the forefront of growth of Israeli R&D.

"We should never stop the dreamers," he says, "but Israel is still a small country and cannot do everything well. So it must focus and prioritize what is relevant."

He states it is important to know who will buy new technologies and how much they will pay. Israeli innovation must start with an understanding of market and consumer needs. Technology must be available at prices that make it accessible to everyone. There are so many innovative ideas, but it is important to focus on those that are driven by real market needs.



Uzia Galil
Former Member of BIRD Council

"Personal creativity can be the source of innovation but it is good management that determines when a startup company can remain independent or when it is essential to merge to reach major global markets," he said.

Mr. Galil has always believed that Israel has the know-how. In the early years, that knowledge was locked into either the military or academia. To make money, this knowledge had to be released to the commercial world.

"Israel had technology and potential but the major problem was marketing. Israel was just too small a country to support its developing R&D. The obvious choice to market technology was via the USA," he added.

"But the problem was that Israeli law prevented any project funded by the Office of the Chief Scientist from selling that knowledge abroad."

He continued: "What was needed was a concept of collaboration; then it didn't mater if the R&D was developed in Israel, money would flow into the project from all sides."

BIRD provided a tool that enabled that collaboration. This is just one of the characteristics that make BIRD unique.

Uzia Galil currently serves as Chairman and Chief Executive Officer of Uzia Initiatives and Management Ltd., which he founded in November 1999. Prior to that, he was Chairman and CEO of Elron Electronic Industries. He holds an M.Sc.EE (Electrical Engineering) from Purdue University and a B.Sc. degree from the Technion in Haifa.

Just a Joke

Back in the early days, when BIRD was still a fledgling, many people thought its agenda was "somewhat ludicrous". For the first 18 months or so, the Foundation had a mere \$3,000,000 a year to distribute, no projects had been initiated and it was looked at with a great deal of skepticism.

A management change was considered imminent. Then a casual remark by one of the members of the selection committee for a new Executive Director led to one of the most remarkable periods in BIRD's history and laid the foundation for the success the Foundation enjoys today.

This is how Dr. Ed Mlavsky, the Foundation's second Executive Director, relates the story of his appointment.

"In 1978 I sat as a member of the selection committee for the new Executive Director with Jack Goldman," he said. "I was working on a solar energy project as a scientist at Mobil at the time.

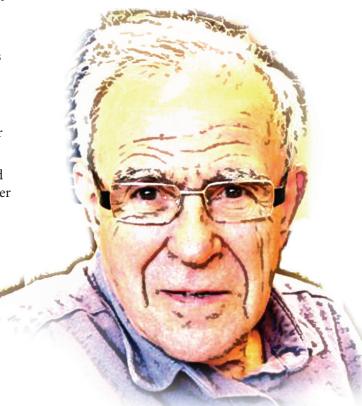
"After reviewing a number of candidates, I turned to Jack and said, jokingly: 'I could do the job better than any of those guys.'

"But he took it seriously," he added. Ed Mlavsky was offered the job.

"I had never really contemplated taking on this job or moving to Israel, but Jack had me cornered and wouldn't let go. I finally agreed to come to a committee meeting in Jerusalem the following weekend."

He remembers sitting in the hotel lobby, dead tired and thinking: "I really don't want to do this."

Then the committee came out of their meeting and gave him 20 minutes to make up his mind.



Dr. Ed Mlavsky

Executive Director, 1979-1993

"I called my wife, Sally, back in the States, and she immediately agreed! She was in love with Israel and really wanted to come. So, I took a two-year leave of absence from Mobil, we rented the house, put the furniture in storage and came."

So began the era of Ed Mlavsky – a 13-year tenure which was to become renowned for its energy, discipline, soaring success and remarkable progress.

Dr. Mlavsky recalls: "I inherited a staff of three people and began to make changes. We needed to reinvent BIRD. Better documentation was a priority. We revised the handbooks and the guides and created a better agreement regarding intellectual property to make it more palatable for companies to participate in projects. There were no rules then. We got to set the paradigm.

"I had a big advantage. I was living in Israel, so the Israelis considered me one of theirs; but I was actually a naturalized American – although I was born in London – so the Americans saw me as an American.

"Both sides could relate to me. I could talk to either in their own language and I was trusted by both sides," he explained.

During his term BIRD approved more than 300 projects, and distributed more than \$90,000,000 in funding.

He recalls that Telrad's "smart phone" was the first approved project.

"They were matched with a small company from the northeast called Pentacom that sold phone systems to small businesses. Pentacom didn't have the ability for research and development in the USA, but they had what the market wanted. "And the Israelis had no idea of how to sell abroad. It was a perfect match – an American company with marketing and sales savvy, an Israeli company with a visionary CEO and brilliant engineers and developers. They were geniuses in coming up with the right product. I think that product is still being sold to this day."

He remembers other companies for which projects were brokered. KLA Semiconductor was one example:

"The CEO, Ken Levy decided to bring his management board to Israel on their annual trip. The board had only one hour to meet with me in Jerusalem, during which time I obviously made an impression and convinced them...they agreed to invest in Israel and are still here today; one of the country's most successful enterprises."

One of the big advantages, in Ed Mlavsky's opinion, was that BIRD was able to build two sources of knowledge. One database housed information about potential participants and the other contained details of the talents and capabilities of individuals and companies.

"It was a great system for matchmaking. BIRD has become a much envied and emulated example of the mutual benefits to be derived from cooperation between technology companies, however physically distant they are from each other," he added.

Ed Mlavsky is still living in Israel and is currently Chairman and Founding Partner of Gemini Israel Venture Fund.

Intimacy and Equality

The BIRD model has a certain sex appeal. It is a unique partnership based on equality and small amounts of money. America and Israel have a very special kind of relationship and this generated the idea that American companies could partner with Israeli start-ups for their mutual benefit.

Thus the opinion of Dan Halperin, who represented the Ministry of Finance in Washington shortly after BIRD was established.

"I really loved my involvement with the BIRD Foundation. I probably gave it more priority than it seemed to deserve on the surface; it was flattering for Israelis to have this core relationship with U.S. business."

"It was a strong, connection at a level of intimacy and equality. The fact that it was a mutual relationship strengthened it. Israel became an equal partner – not only the recipient but the source, not just a country into which America pours money that was never returned, but also able to give back in knowledge, expertise, talent..."

The path towards BIRD was actually laid just at the end of the Yom Kippur War, when a way to strengthen Israel was being sought. By that time, the Binational Science Foundation (BSF) had already been established.

"During the disengagement talks, the idea was raised to provide a method to strengthen Israel internally; providing the opportunity for involvement with organizations such as the National Bureau of Standards. A government agency like this one could provide a great deal of information and guidance, not otherwise available

to Israeli companies," he added.

"Remember, this was 1977. There was no Internet, no "Google" to search for information!"

In Mr. Halperin's opinion, BIRD set a pattern for what has developed into "Best Practices" for Israeli industry. This happened after Ed Mlavsky became Executive Director in 1979.

"He understood industry. Even though he didn't know anything about Israel at the time he was able to create an aura of business for the Foundation."

BIRD was also the wellspring of the VC industry, he added. It was a funding source that got repaid; but what was unique was that it is the only time that government officials make decisions about funding between businesses.

He continued: "One of the best aspects of BIRD is its abilities as a "matchmaker". It opened the gate. There was an inducement for American companies to look at Israeli companies. In the beginning, it provided an opportunity for small Israeli companies to become acquainted with major players within U.S. markets. Today the tables have turned and many major Israeli companies are helping small American startups."

"BIRD is unique in that it is totally equal. This was not a father/son relationship but one of total equals. Equal money from each country and the Board of Governors would be composed of equal representation from both the United States and Israel. Advisors were appointed to help the board".

Mr. Halperin proposed increasing the endowments of the Binational Foundations (BSF, BIRD and BARD). Not everyone liked the BIRD model. George Schultz believed that government should

not get involved in business, but there were other people much more in favor of the project, such as Lionel Olmer, an Under Secretary from the Department of Commerce, Vince Schneider, Assistant Secretary of State and Tom Pickering (a future Ambassador to Israel) who served as Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs. Stanley Fischer who is today the head of the Bank of Israel was at the time a Professor at MIT and an advisor to then Secretary of State, George Schultz. We sought his advice."

Taking a look at the next 30 years, Mr. Halperin added;

"In my opinion, trade agreements and mutual business cooperation will overshadow direct aid in the future. It is a different approach – a unique one with symmetry and intimacy.

In 1977 Mr. Halperin was named Deputy Director General of the Ministry of Finance for International Affairs and its director of anti-boycott activities. In 1979, he was appointed the Minister for Economic Affairs at the Embassy of Israel in Washington D.C. It was in this capacity that he led the successful effort to double the BIRD Foundation endowment.

Mr. Halperin now sits on the boards of several Israeli firms and heads several committees as a member of the Hebrew University Board of Trustees.



Dan Halperin

Israel's Former Director General of Economic Development, Economic Minister in Washington, D.C. 1979-1986

Export Entrepreneurship and Democracy will follow...

These pithy comments come from D. Bruce Merrifield, former Assistant Secretary of the U.S. Department of Commerce for Technology and Undersecretary for Economic Affairs, during the time that Ed Mlavsky served as BIRD's Executive Director.:

It is Dr. Merrifield's contention that the BIRD model is far more significant than anyone understands. First of all, he says, it has been phenomenally successful, beyond anyone's hopes or expectations.

But more importantly, he believes it can be THE model for all developing countries...even those countries presently deep in conflict, such as Iraq.

Dr. Merrifield says he has successfully "cloned" the BIRD model in a number of other countries, such as India, Chile, Finland and Ireland.



Dr. D. Bruce Merrifield

Assistant Secretary of the U.S. Department of Commerce for Technology and Undersecretary for Economic Affairs, 1981-1989 He explains: "The definition of an underdeveloped country is one in which entrepreneurship is stifled – where entrepreneurs are illegal or suppressed. The initiative and the ideas are there, but there is just no environment in which these ideas can flourish."

"The model is unique in global understanding: when you create the environment in which entrepreneurs can flourish, you accelerate national development. Using the early BIRD model of pairing up small companies in a developing country (in this case Israel), with larger, more experienced companies in a developed country – such as the U.S. – you give the small company the skills and resources to rapidly develop and commercialize. It's the joint venture relationship that does it; you ensure development, growth and almost immediate market entry.

"Look at Israel – today there are more entrepreneurs in Israel per head of population than in the United States. In the U.S. itself, the huge wave of entrepreneurial growth occurred when amongst other things, the Government reduced capital gains tax. This released huge amounts of capital into the market which was available for investment and growth. Government's job is to create the right environment, then get out of the way..."

"I say we should stop going on about exporting democracy: export entrepreneurship and democracy will follow."

Warming to his theme he added:

"Two hundred years ago, the earth's population was about 500 million people. Now it is 6.5 billion and on the way to 10 billion by the end of this century.

"Moreover currently, 40% to 60% of these people in the underdeveloped countries are younger than 25, with no foreseeable jobs: civil unrest and increased terrorism are almost inevitable.

"The BIRDF model was so successful that it has already been copied now in other countries with equal success...but now urgently needs to be replicated much more widely to counter this socioeconomic trend

"The key is to create an environment conducive to the formation of entrepreneurial new small businesses, which in turn then creates multiple new jobs. The Israeli environment was in place, but what BIRDF demonstrated was that joint ventures between start-ups with limited resources and big companies with those resources, made all the difference in the rate of commercialization, and the degree of commercial success.

I can envision a critical role for BIRDF in making widely known both the need and the solution... in a global context...

The next 30 years? I would like to see BIRD and Israel expand this concept to help other developing countries – to do what they have already done – its simply a win-win formula...Israel could become famous for such an initiative."

Doing the Impossible

During the 1960s, long before BIRD was even a twinkle in any Government's eye, a leading – albeit nameless – American entrepreneur visited Israel and was introduced to Elron, one of the country's earliest hi-tech companies. They proudly displayed their newest development – a "mini-computer". The American was not impressed, dismissed the invention and declared that it would never succeed.

Dan Tolkowsky smiled as he recalled this prediction.

"I am not sure if it was a challenge, but Israeli inventiveness moved on rapidly from that point and there is no need to discuss what eventually happened with that 'useless' invention," he stated.

What does this have to do with the BIRD Foundation?

"Well, BIRD was part of the reason for the success of Israeli entrepreneurship. The model worked because it was built on a rare affinity between the two countries – between two governments, and the fulfilling of complimentary needs," he added in his immaculate Oxford accent.

He recounts that the late '60s and early '70s were not easy times for Israel. Wars, embargos and France's President De Gaulle forced technology to expand outside the military establishment. There was an explosion of intensive work which spread from the military to academia and then filtered into the private sector.

"Israelis had the brains, but money and support were hard to come by. There were no venture capital funds and one of the few areas of support was the Discount Bank Investment Corporation of which I was then Deputy Director. We were the first to invest money in hi-tech startups."

Dan Tolkowsky relates that hi-tech in the '60s was still in a tentative, learning stage.

"...but then along came Efi Arazi who founded Scientific Technology – later Scitex – and Uzia Galil who established Elbit, the first Israeli company to go public. The major market was America and it was important to build on the natural affinity between the Americans and Israelis.

"Once BIRD was established it fulfilled a very useful function in hi-tech. It was a unique agreement, no other governments had ever created this kind of cooperative business model," he said.

He recalls that the Foundation originally held daylong meetings that were more like mini-seminars. They brought together young entrepreneurs and their dilemmas on one hand and on the other hand, experienced forceful, successful business people. The interaction was a great formula for solving problems, he said.

"The BIRD Foundation was unique in two ways. First, it was able to twin Israeli companies with appropriate American companies. Second was that all projects had to be approved by the bigovernmental board and its advisors. I served as an advisor to that board for nearly 25 years until I retired in 2006. It was always interesting and dynamic.

"What fascinated me was that each Executive Director had a different – and highly successful – approach. Each brought their own special personalities to the Foundation. Despite the changes in leadership, BIRD proved that it knew how to play the game. Different start-ups need different approaches and BIRD was flexible enough to handle all these dilemmas. It was and still is well managed and able to rise above politics."

What about BIRD's role today and tomorrow?

"BIRD is still vital even in the world of venture capital funds. It needs to raise more funds but it is managed very successfully," Mr. Tolkowsky said.

He believes there are new horizons to be tackled, such as Life Sciences, Homeland Security, and so on.

"BIRD must be opportunistic and seek openings to make the impossible come true," he asserts. Just like the mini-computer that would "never" succeed....



Dan Tolkowsky

Advisor to BIRD – 1981-2006

A Special Relationship

The BIRD Foundation offers free networking. This is something that opens doors and is always good for investors, said Yigal Erlich, a former Chief Scientist of Israel's Ministry of Industry, Trade and Labor.

"The special relationship between America and Israel creates an efficient and non-political bridge between companies," he said.

Although BIRD funding for projects is small in comparison with the Chief Scientist's annual budget, it enabled contacts and succeeded in its objectives of attracting American companies to Israel.

Yigal Erlich, the founder and past chairman of the Israel Venture Association, served as the Chief Scientist of Israel's Industry and Trade Ministry from 1984 to 1992. During his eight-year tenure as Chief Scientist, Mr. Erlich was a member of the Board of Governors of the BIRD Foundation. The major responsibility of the Chief Scientist was to evaluate the Israeli side of the project.

"Although, this was a relatively small part of the Chief Scientist's job, it was nice to have the Americans coming here," he said.

"In my opinion the partnerships must be clearly defined. The project needs to be very clear and specific. The BIRD model is very good for management. It is well-managed, very efficient and non political

"The repayment model is also very specific even though BIRD projects have a higher repayment rate than if they were funded by the Office of the Chief Scientist. The advantage is that with a BIRD project there are no investors sitting on your head. In addition, there are fewer restrictions on BIRD projects than those imposed by the Office of the Chief Scientist, such as the law preventing those incubator projects which receive money from the Chief Scientist from selling their know-how outside Israel.

"BIRD funding exempts such companies from this rule, while still enabling them to receive the tacit approval of the Office of the Chief Scientist. It was in this way that BIRD projects helped Israel to create their fame in technology, which attracts investments," Mr. Erlich said

He added: "BIRD is still relevant because it has the ability to facilitate small projects. The model still works and gets good results. We have seen many changes over the past 30 years; personal computers, mobile telephones and the proliferation of air travel. BIRD is still relevant but it must delve into new areas, such as alternative energy, "clean tech" projects, homeland security, nanotechnology and, especially DNA research that will eventually generate personal cures."



BIRD's Role in Israel's Robust Economy

To say that Israel has a robust economy today would be something of an understatement.

"Just look at the very severe external shocks it has endured during the past year alone," said Mr. Yarom Ariav, Director General of Israel's Ministry of Finance, referring to 2006.

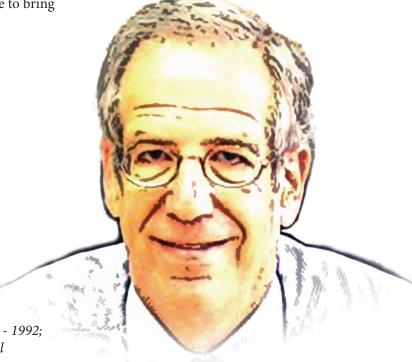
He cited the illness and incapacitation of Prime Minster Sharon and the Second Lebanon War. In addition there are various exposés, the ongoing conflict with the Palestinians "...and yet the economy continues to thrive; and the hi-tech sector in particular is enormously prosperous," he stated.

This is the message that BIRD can continue to bring in its matchmaking activities, he believes.

As the representative of Israel's Ministry of Finance on the Board of Governors from 1988 to 1992, and being in charge of the Chief Scientist's budget in those years he could see the linkage and overall policy being applied from Israel's point of view. One could also see how to use government money correctly – in the right way.

"The contribution that BIRD made in getting contacts and matchmaking with U.S. companies was enormous – it was encouraging infant industry...as civilian R&D was in what I call 'pre start-up' mode in those years."

He added that he was very impressed by the BIRD Foundation's professionalism:



Yarom Ariav

Member of BIRD Board of Governors, 1988 - 1992; Director General, Ministry of Finance, Israel "The way they analyzed and assessed a project was intriguing. At each meeting we analyzed projects and we tried not to be too rigid regarding which sector we were interested in. We looked across the entire spectrum.

"I considered our work as an investment in Israel's future."

He added that it was easy to see Israel as the greater beneficiary, even though the investments and the projects were for mutual benefit.

The BIRD Foundation's main contribution over the years was in the economic value of the successful projects that were initiated, which is possible to judge from statistics and the royalties that BIRD earned.

"But the other contribution was at the human level, meeting and matching of cultures: We learnt how to deal internationally – in those days, our people didn't have too much experience at that level and they learnt how to work with companies and people on an international scale. We learnt about marketing, how to raise money from investors, working in a global economy."

"The U.S. companies on the other hand, also learnt about how Israelis work and it was a fascinating cultural exchange...and to see how with a common goal, we were able to bridge the gap. This worked extremely well and the BIRD officials acted as facilitators – they made it happen," he said.

"Of course Israel's economy is vastly different today. We have matured and this is my message to BIRD:

"Look at our economy as much more mature than it was...and try to create matches between equals. Although we are still a small country with many small companies we do have some very large global players.

"And of course our hi-tech today has enormous world respect – we should use this as leverage."

Looking to the future, he is optimistic about this kind of activity – cooperation, matchmaking and the ties between Israel and the U.S.

"They are very strong and will continue to be strong – it's important to preserve this kind of activity and also to enter new fields: green energy, nanotechnology, water desalination. These are intensely interesting areas of activity for both parties."

How to Pick a Winner

For Dan Vilenski it was always easier to accept a proposal than to reject one. "After all, how do you know that you are not making a mistake...and rejecting something that may just be the next best thing?" he commented.

To illustrate the point, he referred to a response by Western Union in 1876 after Alexander Graham Bell had offered to sell them his telephone patent for \$100,000. The committee appointed to investigate the offer filed the following report:

"We do not see that this device will ever be capable of sending recognizable speech over a distance of several miles. ... (they) want to install one of their 'telephone devices' in every city. The idea is idiotic on the face of it. Furthermore, why would any person want to use this ungainly and impractical device when he can send a messenger to the telegraph office and have a clear written message sent to any large city in the United States? ...(these) fanciful predictions, while they sound rosy, are based on wild-eyed imagination and lack of understanding of the technical and economic facts of the situation, and ... ignoring the obvious limitations of his device, which is hardly more than a toy. This device is inherently of no use to us. We do not recommend its purchase."

A copy of this response hangs in Dan Vilenski's office as a daily reminder of how seriously wrong one can be...

Recognized as one of Israel's leading hi-tech entrepreneurs, with three extremely successful major companies notched in his belt, Dan Vilenski was drawn into BIRD by the then outgoing Executive Director Ed Mlavsky.

"I responded: 'Are you crazy? Why should I leave hi-tech for bureaucracy?' Then I thought about it for 24 hours..."

He added "My philosophy has always been: if you want to complain about something, you have to do something to earn the right. I'm not motivated by money; I want to ensure that my children, grandchildren and great grandchildren will be able to live in a vibrant and viable Israel – so I needed to step up and do something to help make that come true.

"I'm not talking about politics – that's a different story – but I am what I call an Industrial Zionist... build the country, develop business and industry, and most of all we need to do something with education and systems.



Dan Vilenski

Executive Director, 1993 - 1997

"I agreed to take the position for two years – and stayed for four I was enjoying it so much. I offered to stay on because I felt I was making a positive contribution."

Mr. Vilenski stated that not all projects accepted by BIRD were successful. "How does one evaluate results? If companies worked together, developed products and sold those products with the subsequent benefits for BIRD, then that was considered a tangible success. But not all projects succeeded first time around. However, if there was a continued connection and each company, recognizing the potential in each other continued working together to develop their products and services later – even if BIRD was not involved at that stage – then even that was considered a success – albeit intangible. I often wonder just how many projects could have happened without BIRD's influence."

Dan Vilenski views his tenure as Executive Director as proactive: "I spent little time in the office as I was traveling throughout Israel and the U.S. looking for what I called 'golden eggs'...

He said his formula was to seek out Israeli companies first and then he tried to find the matchup in the U.S. He explained further: "It was like looking for the weakest link in the chain. At that time, Israel did not have much marketing expertise – this was Israel's weak link. Our expertise was in production, science, technology – often the weak link in the U.S. company.

"So I sought out the Israeli companies with excellence in their fields and matched them with U.S. companies which had excellence in the fields of marketing and bringing products to customers. In this way we strengthened the chain and created a generally successful match."

In answer to the question of whether BIRD has achieved its many objectives, he answered: "There is no question that they have...if the mission was to improve relationships between both countries...then it has been a major success. There are examples of U.S. companies which were reluctant to come to an 'unstable area' – as Israel was perceived to be. But we convinced them to come and there have been many great successes. BIRD provided that kick start to the business."

Looking to the future, Mr. Vilenski believes that BIRD will remain relevant. "I don't think industrial matchmaking will disappear...somebody needs to make the match – it's all about people. BIRD is an industrial matchmaker, but without people it will not work. I'm confident there is a place for a much stronger BIRD." He says the world will be based on science and technology. And as Chairman of the Fulbright Scholarship program in Israel, he is vitally concerned about education.

"Society needs scientific education. More money needs to be allocated; better teachers are needed for our children. And to be successful, education needs to focus more on developing good communication skills. This is a major weakness all over the world.

"Communication needs to be precise, quick, to the point. This is our biggest educational challenge."

Today Mr. Vilenski is also intimately involved with the INNI – Israel National Nanotechnology Institute.

"Nanotechnology is going to be the next big thing. This is where people should be focusing."

Time Traveler

Taking a trip through time with Stanley Abramowitz is a fascinating experience. A Physical Chemist by profession, he is keenly aware of the vast changes which have taken place in the fields of biochemistry and pure and applied science over the past 30 years. He is also excited about the quantum leaps he predicts we will see in these– and other – fields over the next 30 years and the important role he believes BIRD can play in the future...

But let's wind back to the years long before the formation of BIRD and possibly long-forgotten events which influenced the decision to eventually establish the Foundation in 1977.



Dr. Stanley Abramowitz

Member of the Board of Governors – 1995 - 2000

After World War II, the United States passed Public Law 480, known as PL480, a funding law designed to help developing countries or those affected by the war and through which the U.S. was able to send them food and other development and reconstruction aid.

Repayment of the PL480 loans was to be in the country's own currency, re-paid in that country and then used to support other development projects in that country. Israel was among the PL480 recipients.

"Not many people will remember that one of the major PL480 projects in Israel in the 1950s was the importing of books from America – all kinds of books; novels, academic books, general interest – it was possible to buy a book in Israel cheaper than in the U.S., and when I was a student, I used to buy all my text books here," Dr. Abramowitz recalls.

After receiving PL480 funding for about 10 to 15 years, there were a number of scientific projects at the Hebrew University, the Weitzman Institute and other academic institutions. Then during the 1970s, it was decided to stop channeling PL480 to Israel and to re-direct those funds into more focused foundations: the BIRD Foundation was one of the results of this decision.

So what was life like in the years that BIRD was established?

- There was no Internet, certainly not in the sense it is used today – (Ed. note: there was a military network, until Tim Berners-Lee "liberated" it for public use...)
- There was no understanding of DNA sequencing of the Human Genome to allow the development of modern medicine

- There was no technology for synthesizing drugs
 e.g. recombinant DNA technology
- Nanotechnology didn't exist not even as a concept
- A primitive Personal Computer was just beginning to surface...
- A Computer Interface (MMI) for manufacturing [i.e. CAD/CAM] didn't exist
- Semiconductors which made the development of smaller computers, digital cameras, cell phones etc. didn't exist
- Cell phones didn't exist
- There was no Venture Capital certainly not in Israel

Moving "fast forward" to the next 30 years, what does Dr. Abramowitz believe the future holds for the world and for BIRD?

Health: We will all be carrying around details of our own DNA – permanent genetic information. Inexpensive DNA sequencing technologies will make it possible to treat diseases in the individual before they even occur!

Communications and Electronics: Computers will totally run the household, allowing people to do things more efficiently.

For example, the Smart refrigerator – already well into development – will advise the household on the state of its contents, automatically order low running supplies via the Internet; the Smart vacuum cleaner will know where and when to clean without human intervention; Smart heating and cooling through utilities such as "smart windows" – working on similar principles to tinted

sunglasses - will minimize the use of energy.

Energy: Windmills will become commonplace – using the wind to generate power; we will be able to use different thermal levels in the ocean to generate energy, in much the same way as we do now with hot springs. Silicon will become an energy source.

Robotics: Will enable health care over the Internet – not only information (as is in wide use today), but "virtual" surgery will be able to be carried out by robots. It will also become a valuable training tool, for distance learning. Car and other manufacturing will be done entirely by robots, on a far wider scale than today. A whole new set of applications will exist.

In the next 30 years, BIRD will have more competition, says Stanley Abramowitz. "It will have to change in terms of the type of investments it makes – prior to my tenure, there was very little life sciences in the portfolio, today there is a lot more.

"BIRD can be a powerful catalyst – introducing people for a professional exchange of ideas... it needs to be more focused when networking – using its knowledge, data base, experience to help people meet other people, companies meet other companies...doing what it does best: matchmaking at the highest level.

"Just look at what it's done in the past 30 years... Israel has changed far more than the United States and much of this has to do with BIRD's role in the emergence of Israel's hi-tech industries. This is proven by the fact that among all the countries represented on NASDAQ, Israel is second only to Canada.

"If this is what we've done over the past 30 years, the next 30 can be even better."

A Push Through the Door

Where would Israel be today without BIRD? This intriguing question is asked by Dr. Orna Berry, former Chief Scientist of the Ministry of Industry, Trade and Labor and a Member of the Board of Governors from 1997 to 2000.

"I have been lucky enough to have been involved with BIRD from both sides – as a member of the board in my role as Chief Scientist and as an entrepreneur. It is an amazing entity," she said.

"As an entrepreneur, I really benefited not only from BIRD in a project context, but I learned a great deal from the people: Ed Mlavsky, Dan Vilenski, Danny Tal (who worked for BIRD), Dov Hershberg and the current Executive Director, Eitan Yudilevich."



Chief Scientist, 1997 - 2000

Dr. Berry continued: "I first became involved when Ed Mlavsky was Executive Director. It was an eye-opening experience for me. He was amazingly knowledgeable and being from a business background, his knowledge of marketing was above and beyond our perceptions at that time."

She notes that BIRD was very serious about their projects; this legitimized the organization, she added.

"Israel had amazing capabilities and American companies had tremendous opportunities due to their critical mass. But it was BIRD partnering that gave these Israeli-developed technologies access to markets – a strong push through the door."

In the early days, she said, when there was no foreign capital being invested in Israel, BIRD made the difference. Even today BIRD plays a significant role in the hi-tech world.

"While venture capital funds tend to look at marketable technologies like telecommunications and information technology, BIRD can expand the horizons of hi-tech into new areas like 'cleantech' homeland security, human capital and education."

Party to Profit

Dov Hershberg became involved in BIRD in a funny kind of way, he notes. "It was actually my son who saw the 'wanted' ad in a local newspaper for a new Executive Director. He thought that as I had spent several years working in hi-tech in the United States, I might be good for the job. I got the job and the rest is history," he added.

Social events and hi-tech may not seem to have a lot in common but since BIRD held two board meetings a year, Mr. Hershberg, as the new Executive Director, thought that it would be useful to make them into social events, leveraging them to further BIRD's objectives. "Annual board meetings conjure up rather dry images, so I turned these into social events that gave people the opportunity to meet and network in a unique environment. The publicity generated from these social gatherings gave us an opportunity to expose the BIRD Foundation and generate publicity.

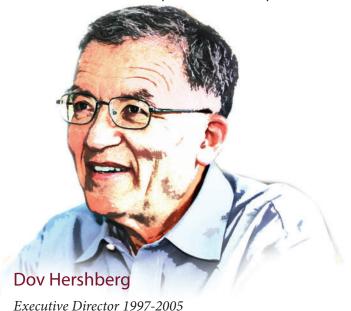
"It was in these informal settings that both Americans and Israelis from many different areas of technology were able to meet and talk and get acquainted. In the light of this innovative spirit, Israel has a very high number of early stage, startup technology companies. I could say that small technology companies are one of Israel's prized national resources.

Making matches is one of the things that BIRD does well. In those years, Israel's budding technology field really needed a boost and BIRD provided an amazing opportunity that certainly helped more than one Israeli start-up leave the nest. It was advantageous for both sides, since BIRD provides primary funding for projects that are too risky

for traditional sources. No matter how large a company, there are always projects that are just a little too farfetched. It is here that BIRD can step in and provide primary funding for projects that might be too risky for traditional sources.

"Even today, the BIRD Foundation continues to be an excellent resource for encouraging Israel to be a global trader," Mr. Hershberg adds.

Dov Hershberg was the founder and Chief Executive Officer – with colleagues from Stanford University – of Molecular Applications Group ("MAG"); which created molecular function software in biomedical research before assuming the most senior executive position at BIRD. He holds graduate degrees in Mathematics from the Hebrew University in Jerusalem, Israel and in Applied Mathematics and Operations Research from Columbia University in New York City.



The following projects provide some examples of the scope of BIRD's work. They cover everything from Life Sciences to Communications, Homeland Security to Alternative Energy. Their common factor is the quality and value of cooperation and matchmaking provided by the BIRD Foundation.





Eastman Kodak

Aliroo: an international developer of innovative enterprise information and internet security solutions.

Eastman Kodak: Kodak's Health Imaging Group is a world leader in developing, manufacturing and marketing intelligent imaging products from analog to digital.

Project Title:

Advance Secure eMail System ("ASES")

Joint Development Product:

Secure E-Mail Service for healthcare services, which can encrypt e-mail messages and their attachments so that patient information and images can be sent securely over the Internet to physicians, patients and other healthcare providers.

Status:

Commercializing successfully.



Atrica Israel



Infinera

Atrica Israel is a leading provider of Carrier Ethernet solutions for Metropolitan Area networks.

Infinera designs manufactures, and sells radically lower cost equipment to the optical transport network market.

Project Title:

Optical Ethernet System Integrated with Low-Cost Long-Haul Optical Transport.

Joint Development Product:

Multi-service TDM over packet for cable networks.

Status:

Commercializing successfully.



BigBand



BigBand Networks designs, manufactures, sells and supports Broadband Multimedia-Service Routers (BMR).

nCUBE (acquired by C-Cor Inc.) provides scalable streaming media solutions to all broadband networks.

Project Title:

Multi-Service Networked Digital Advertising Solutions for the Cable TV Industry

Joint Development Product:

Digital advertising solutions for broadband network operators – nCUBE's Digital Program Insertion (DPI) solution with BigBand Network's Broadband Multimedia-Service Router (BMR).

Status:

Commercializing successfully.

BIOMEDICOM



Founded in 1998 as a spinoff from Silicon Graphics, **BIOMEDICOM** is a medical software company creating diagnostic and therapeutic software applications

Founded in 1984, **Cassling Diagnostic** Imaging is a full-line sales and service organization for Siemens Medical Solutions

Project Title:

Fetal Weight Measurement Using 3D Ultrasound

Joint Development Product:

The objective of the project is to develop a product for accurate ultrasonic fetal weight measurement application

Status:

Project completed.



Cadent develops and sells proprietary 3D-based services to dental offices.

3M Unitek designs, manufactures and sells orthodontic appliances, and it is the world's largest supplier of these products (acquired by 3M in 1987)

Project Title:

3D Imaging for Orthodontics

Joint Development Product:

Development of a worldwide business to provide the orthodontic industry with highly accurate, convenient and attractively priced 3-D images of teeth.

Status:

Commercializing successfully.



Career Harmony a software company specializing in assessment and selection solutions for the recruitment and career management markets.

Manpower, a world leader in the staffing industry, providing workforce management services and solutions to customers through 3,900 offices in 61 countries.

Project Title:

NetSelect

Joint Development Product:

Web-based Assessment management system. NetSelect is an innovative pre-screening tool that will provide an efficient and comprehensive assessment of job candidate suitability.

Status:

Commercialized successfully; repayments completed.





CByond



CByond specializes in designing video-scopes for medical applications.

ACMI (American Cystoscope Makers Inc.), founded in 1908, is a leader in the development and production of the world's finest endoscopy instrumentation for the medical industry.

Project Title:

Fox Electronic Video Camera

Joint Development Product:

Flexible endoscope with integrated LED as a light source.

Status:

Commercialized successfully; repayments completed;

Note: ACMI acquired CByond; ACMI was subsequently acquired by Gyrus.



CogniTens



TESCO

CogniTens develops, manufactures and markets 3D vision measurement systems for industrial applications, mainly targeted at the automotive and aerospace industries

TESCO Group Companies deliver a wide range of high quality agile manufacturing systems and services for today's global automotive market

Project Title:

Flexible 3D Measurement System for the Automotive Industry

Joint Development Product:

Automated measurement systems designed for process control and quality assurance on the production floor.

Status:

Commercialized successfully; repayments completed.

Note: TESCO Group Companies has changed its name to HIROTEC AMERICA.





Lasertel

Elbit is a developer and supplier of advanced defense and HLS systems

Lasertel is a subsidiary of Presstek, a leading developer and manufacturer of digital laser imaging

Project Title:

Low-Cost LGICMOS (Laser Gated Intensified CMOS) Camera for Homeland Security Application

Joint Development Product:

Low-cost laser illuminator for night-vision cameras in perimeter security applications.

Status:

In process.

FreshPoint



FreshPoint specializes in the area of smart packaging, such as novel organic crystal-based time-temperature indicator

Ciba Specialty Chemicals Corp. a leading global company dedicated to producing highvalue effects for its customers' products.

Project Title:

Novel Time Temperature Indicators.

Joint Development Product:

Novel printable & chargeable time temperature indicator provides freshness check at a glance. Time-temperature indicators show accumulated chill-chain history of perishables...

Status:

In process.

GF Medical



GE Medical Systems Israel (presently GE Healthcare Israel) a wholly-owned subsidiary of General Electric Company, is responsible for several Magnetic Resonance (MR) programs, including development of interventional and intraoperative applications for MR scanners.

Robin Medical engaged in R&D of various medical devices, including ECG monitoring, non-invasive quantification of cardiovascular performance, echo contrast imaging, and tracking during MRI.

Project Title:

Tracking for Magnetic Resonance Imaging

Joint Development Product:

The product uses electromagnetic fields that are generated by the MR scanner for tracking. The new technology can be easily used with any MR scanner as a "plug and play" option.

Status:

Project completed.

InfraCom



InfraCom specializes in design and development of short-range wireless communication links based on Diffused Infrared technology.

Apogee specializes in design and development of digital amplification ICs for the audio industry.

Project Title:

A Fully Digital Wireless Amplification Controller

Joint Development Product:

A new low-cost chipset enabling high-quality wireless links for the audio market. The ASIC integrates Infra-Com's IrGate wireless technology, Apogee's dynamic data exchange digital amplification technology, and many other new capabilities.

Status:

Project completed.





Medical Electronic



Progeny

Medical Electronic Systems develops automated sperm quality analyzers (SQA) for assessing male fertility in both humans and animals.

Progeny Systems is a U.S. veterinary instrument company specializing in the application of hi-technology information solutions for agriculture.

Project Title:

SQA III - Optibreed

Joint Development Product:

The two companies are jointly developing a next-generation system for sperm analysis both for the human fertility market as well as for the animal food production market.

Status:

Successfully commercialized.



👛 Opgal Optronic



Kollsman

Opgal Optronic Industries a leading supplier of highly sensitive cooled and uncooled Thermal Imaging Systems, and components.

Kollsman a leading manufacturer of avionics and electro-optic systems supplying commercial and military markets as well as a medical instruments systems contractor

Project Title:

Aircraft Enhanced Vision System (EVS)

Joint Development Product:

The EVS camera is designed to provide day/night improved orientation. It allows visual landing in reduced visibility conditions, such as fog, haze, dust, smog etc. The system provides a fused, visual and near-IR picture, and displays a video image, superimposed on the pilot's Field-Of-View.

Status:

Commercialized successfully; repayments completed.



Resolute Networks



Resolute Networks a digital communications technology company and a technology leader in multi-service access products for IP networks.

Arris a communications technology company providing broadband local access networks for the delivery of voice, video and data to the home and business.

Project Title:

System for provisioning E1/T1 services

Joint Development Product:

Multi-service TDM over packet for cable networks.

Status:

Project completed.

Surf

Texas Instruments

Surf is the leading provider of MoP (Media over Packet)-enabling technologies and solutions that enable true convergence of all media types.

Texas Instruments is a world leader in digital signal processing technologies.

Project Title:

Surf Rider Resource Board for MoP (Media over Packet) Applications

Joint Development Product:

A high-density media conversion solution, which enables full conversion of all media types: Voice, Fax Mode and Video between Wireline, Wireless and Packet network types.

Status:

Commercializing successfully.

These quotes and comments about BIRD and its work have been gathered from a number of people who have been involved with the Foundation in one way or another.

They include CEOs and Board Chairmen, Congressmen and Public Sector Professionals. All in all, they reflect the breadth of BIRD's reach and influence in the development of hi-tech in the United States and Israel.

Dan Barnea

Senior Vice President, BMC

As someone who has been involved in companies with significant operations both in the U.S. and in Israel, I greatly value the past and present work done by the BIRD Foundation in promoting U.S.-Israeli cooperation.

Thomas Hooker Bliss, Jr.

Director of International Licensing and Licensing Operations of Amgen

As a result of a meeting with BIRD at the 2006 Biotechnology Industry Organization's annual meeting in Chicago, Mr. Bliss attended BIOMED, Israel's premier life sciences conference.

During his stay, he met with venture capital groups, incubators, university technology transfer groups and representatives of individual companies and the Ministry of Industry, Trade and Labor and the Chief Scientist's Office.

In total, nearly 50 partnering discussions were held, mostly at BIOMED but also at a number of universities, institutes and other biotechnology-focused organizations.

Mr. Bliss commented on his expectations and experience: "I'm delighted to say that we inked an agreement with one group the day I arrived and have subsequently licensed a therapeutic candidate. Although Israel has long been a research location of renown, there has been a distinct maturation of efforts in Israeli biotechnology in recent years and we intend to step up our dialogue with the industry in Israel via participation in programs like BIOMED."

Congressman David Davis

(R-TN)

"This legislation* is modeled after a partnership created by Congress in1977 between the United States and Israel. This was called the Binational Industrial Research and Development Foundation also known as BIRD. In 29 years, the BIRD Foundation has invested \$225 million in 690 cooperative research and development projects mutually beneficial to the United States and Israel."

*Promoting Anti-Terrorism Cooperation through Technology and Science (PACTS) (Act HR 884)

Ra'ed Elmurib

Vice President, General Manager, Microprocessor & ASIC Product Division PMC-Sierra

The concept of the BIRD Foundation and its efforts in connecting start-up hi-tech companies out of Israel with mature companies in the U.S. is very helpful to us in the Corporate Development side...

It opens our eyes to new technologies and talents that we might not otherwise have known about. Thanks very much for all the support.

Marvin Feuer

Director of Policy and Government Affairs AIPAC

I commend the people that have made BIRD such a success for the past 30 years. I hope we can take advantage of BIRD's successful model to expand joint U.S.-Israeli activities into exciting new areas like homeland security cooperation and the development of energy alternatives.

Levy Gerzberg

Co-Founder, President and CEO of Zoran Corporation.

I attribute Zoran's existence to a large extent to BIRD! The BIRD support for Zoran, which started more than 20 years ago, enabled us to develop and deploy new, pioneering products that otherwise would have never been possible.

The BIRD vision and outstanding support triggered Zoran's growth with cumulative revenues approaching \$2 billion and market penetration into more than 300 million homes and offices.

Thank you BIRD for helping us make it happen!

Bryant Isaacs

President, New Business Ventures, Arris

The BIRD Foundation proved to be very easy to work with. They have a well defined process from project inception to completion. This process also reinforced the formation of a healthy trustful relationship between the companies involved.

Our partner company was Resolute Networks based in Israel. ARRIS HFC technology and Resolute's Circuit Emulation technology were combined to provide a key business services solution for ARRIS cable TV customers.

Dr. William Jeffrey

Director of the U.S. National Institute of Standards and Technology (NIST)

"I am impressed by the contribution the BIRD Foundation has made to U.S.-Israel industrial cooperation. I am especially proud of the role that the Department of Commerce and its National Institute of Standards and Technology has played in this endeavor. The BIRD relationship has proven the practical value of nations teaming to advance science and technology for mutual benefit. We have improved the economic strength and quality of life for our citizens as well as for others around the world."

Congressman Peter T. King

(R-NY) Chairman of the House Committee on Homeland Security

U.S. Congressman King, on the House passage of Anti-terror Technology Sharing Bill, Washington, D.C. (September 27, 2006):

"Legislation will build on relationships with key allies like Israel. The development and implementation of technology is critical to the security of our homeland; and, for the past 29 years, we've benefited from a close working relationship with Israel through the BIRD Foundation, and the Israelis' great experience and success in combating terrorism."

Ken Levy

Chairman Emeritus KLA-Tencor Corporation

The encouragement and financial support of the BIRD Foundation was instrumental in KLA's decision to build an operation in Israel in 1986. The KLA-Tencor Organization is indebted to Ed Mlavsky and his staff for helping us through the early years, so that we could ultimately build a very strong and profitable operation in Israel.

Dr. Dan Maydan

President Emeritus, Applied Materials

I believe that the BIRD Foundation played an important role in bringing Applied Materials and OrAmir together through a successful joint development program that ultimately led to the acquisition of OrAmir by Applied Materials.

Dov Moran

CEO M-Systems

Indeed BIRD played an important role in our survival...and it gave us a first glance of what's involved in dealing with American companies. Those were the days where there was no email and no internet. A telephone call abroad was too costly to consider and sending a fax was an operation that required driving 30 minutes to the nearest fax machine.

With BIRD support and encouragement, somehow those gaps were shortened...

Mickey Steiner

Managing Director, SAP Labs Israel Ltd.

In 1985 we started the first project with BIRD support between Kolnet Systems, a very small Israeli company and Console Systems Inc. (CSI), a mid-size California company, to develop an innovative communications system. The American company would have never done the project without BIRD and they were very impressed by the capabilities of the Israeli developers despite the fact that there were no resulting sales.

Then Cylink – a security company – followed with yet another BIRD project, which again exposed the fine skills of the Israeli developers finally leading to the acquisition of "Algorithmic Research" by Cylink.

BIRD was a strong catalyst in creating American exposure to Israeli talent, thus creating real value in Israel as well as successful cooperation. The BIRD team was professional, helpful, with a direct and "no nonsense" approach – not cutting any corners but also not putting up barriers.

Their sole purpose was to get the best projects and the best partnerships off the ground!

Eyal Waldman

Chairman & CEO, Mellanox Technologies

BIRD Foundation helps to start and build companies as demonstrated with Galileo Technologies (now part of Marvell) and Mellanox Technologies. In both cases the BIRD Foundation has helped our funding in the early stages of the company.

New Horizons ...

I have been serving as BIRD's Executive Director for only 16 very intensive months and now in my second year at BIRD, I have the privilege of being part of the celebrations for the Foundation's 30th Anniversary.

I am often puzzled by the way organizations and sub-organizations develop a culture, a kind of personality. In large firms, with a declared, supposedly predominant culture, one can still detect differences between divisions, departments, and so on. Even a relatively small group of people, working together with a common goal and a leadership, may have a "culture" or a "core ideology", which can be described as "the enduring characteristics of an organization – its self-identity that remains consistent through time."

After these exciting first 16 months, I can say for sure that the BIRD Foundation has a "culture" and a "core ideology". In spite of being a relatively small group of people, one can clearly detect those special behavioral and cultural aspects, which make it such a unique organization.

I don't think I need to specifically articulate the "core ideology", since you can read about that in the various chapters, where either explicitly or implicitly those interviewed have emphasized the cultural elements that make BIRD so special. Many of them were directly responsible for shaping BIRD's culture and making it what it is today.

We now have to look forward ... to The Future.

I have no idea what will happen in the future and I am not going to try to do better than Erasmus Wilson, who in 1878 said that "when the Paris Exhibition closes, electric light will close with it

and no more be heard of" or than IBM's Thomas Wilson (no relation) who in 1943 stated that "there is a world market for maybe five computers". I am also not going to try to predict if indeed world temperatures will continue rising or if "we are living in a bubble".

Instead, I would like to tell you my thoughts about how BIRD can continue to be a relevant and contributing organization for many years to come.

First, BIRD must continue cultivating joint U.S.-Israel cooperation through company-to-company projects, its originally defined mission, serving companies and entrepreneurs in both countries. As stated many times by senior U.S. and Israeli officials, the BIRD Foundation is an important element of the special relationship between the U.S. and Israel.

To do so, we need to adjust to the changing environment. We have already taken the first steps, for example, by adapting the proven "BIRD Model" to projects in Biotechnology, which have a much longer time span from development to sales.

We have also taken steps to enter new areas of great importance from a commercial and social point of view, such as Renewable and Alternative Energy and we are studying and seeking projects in other Sustainable Technology Areas, e.g., new water technologies and in emerging enabling technologies, such as Nanotechnology.

BIRD is increasingly cooperating with other organizations to take advantage of existing synergies and to avoid duplications. This is specifically true with regard to "matchmaking" activities, which are a "core capability" of BIRD. BIRD's objective is to have two companies

perform a joint project and succeed. However, we strongly believe that an important contribution, a somewhat intangible value brought by BIRD, is to have the expertise and be able to help Israeli companies find their way in the U.S., as well as assist U.S. companies to find technologies and innovation in Israel. This aspect of BIRD's activities is often emphasized by our "customers". Some even consider it more important than the funding provided. I personally believe that both go handin-hand and the matchmaking is more effective because of the potential funding we can provide.

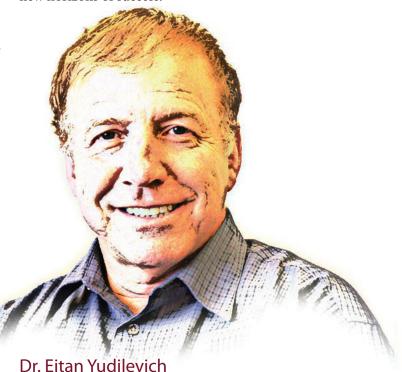
What else? A critical issue is the funds available. The last time BIRD received an increase in funding was in 1984. Since then, inflation and the increased cost of R&D have reduced the buying power of the funds BIRD is able to provide to companies. We are already actively pursuing opportunities to increase BIRD's availability of funds, specifically by focusing in areas such Renewable-Alternative Energy and Homeland Security.

It is not very well known that the team at the BIRD Foundation has another very important role, assigned to it in 1996, when a joint U.S.-Israel-Jordan fund, named TRIDE, was established. This fund was provided with relatively small amounts of money by the three governments to support joint industrial R&D projects between companies from the three countries, following BIRD's model. I believe this is a very important endeavor, in which the BIRD team has contributed to regional cooperation and economic growth. We plan to continue doing so and we aim to make TRIDE much stronger.

The strongest asset Israel brings to the table in a relationship like the one formed with the U.S. in the

BIRD Foundation is the quality of its people and their innovation. Today, most U.S. companies will also recognize the predominant importance of the quality of their people to achieve short and long term success. In this aspect, there is no difference between a company and an organization like BIRD. Given the right structure and the financial means, the key factor for the making of a star organization is the quality of its leadership and its people. By now, I know the BIRD team pretty well, so I can assure you it is of the highest quality.

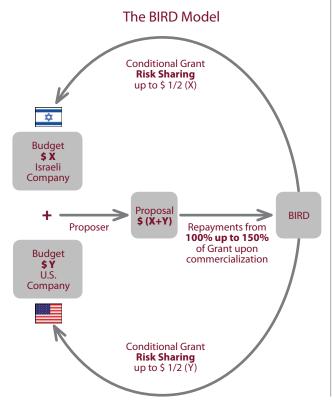
In all humility, I hope to be able to fulfill my own role and continue driving BIRD forward towards new horizons of success.



Executive Director, BIRD Foundation

BIRD's Approach - Summary

- BIRD helps find strategic partners
- BIRD offers conditional grants for joint development on a risk-sharing basis
- BIRD funds up to 50% of each company's R&D expenses associated with the joint project
- BIRD does not claim any repayments if the project doesn't succeed
- BIRD claims repayments as royalties only if commercial revenues are generated from the project



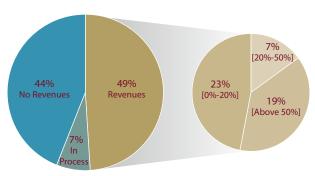
BIRD's Performance 1977-2006

Projects:

Number of Approved Projects	743
Full Scale	572
Mini Projects	171
Grant Payments, Repayments & Di	rect Sales:
Grant Payments	\$245M
Repayments	\$82M
Direct Sales*	\$4.4B

^{*}The actual sales from BIRD projects are higher, since no sales information is received from the companies after the grant is fully repaid.

Level of Conditional Grant Repayments



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Mr. Amnon Neubach

Prof Ezra Sadan

Dr. Emmanuel Sharon Mr. Nathan Sharony

Mr. Shalom Singer

Mr. Amiram Sivan

Mr. Shmuel Slavin

Mr. Yosi Snir

Mr. Carmel Vernia

Prof. Itzhak Yaakov

Prof. Ben Zion Zilberfarb

Mr. Yoram Ziv

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Ms. Elizabeth Hughes

Mr. Michael Kaplan

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Mr Amos Efrati

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Mr. Ishay Laks

Mr. Yonathan Levy Mr. Yoel Naveh

Mr. Boaz Radai

Ms. Sharon Regev

Ms Nili Ronen

Mr. Shlomo Shalev

Mr. Udi Sheintal Mr. Yochi Shochat

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Mr. Dan Tolkowsky ISRAEL

Mr. Amos Wilnai ÍSRAEL

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A. Wade Blackman 1977-1979

Dr. A.I. Mlavsky 1979-1993 Dan Vilenski 1993-1997

Dov Hershberg 1997-2005

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Tania Ben-Shabat

Anat Biel

Yael Bricker Dov Eden

Miriam Eisenberg

Carmella Even Chen

Douglas Fish

Carev Fruitman

Anat Ganor

Ioan Goldstein

Ira Grinberg Yael Hollander

Liora Katzenstein

Orna Kroch-Interator Irit Manskleid

Lise Messika

Donna Pilpel Pamela Richman

Ehud Shamai

Kenneth Shostack

Chanan Steinhart Daniel Tal

Naftali Trenter Moser

Yehuda Velsher

Yuval Zak * Employed for at least one year

Israeli Grantees

2AM Development Ltd.

3Meg Power Systems Ltd.

3P Technologies Ltd. A To Z Technologies Ltd.

A.R.T. Ltd.

Academia Medica Ltd.

Accord Video Communications Ltd.

Adacom Technologies Ltd. ADI Video Technologies Ltd. Advanced Pneumatic Structures Ltd.

Advanced Semicond. Tech.

Advanced Technology Ltd. AE40 Ltd.

A-Eye Advanced Vision Technology Ltd. Algatechnologies Ltd.

Aliroo Ltd. Allegro Intelligent Systems

Any Soft Ltd. Applicom Systems Ltd. Applied Imaging Ltd.

Applied Materials Israel Ltd. Applied Spectral Imaging Ltd.

Aptel Ltd. Aquaculture Prod Tch Ltd

Arieli Computers & Software Ltd.

ASI Ltd Atlas Research Ltd.

Atrica Israel Ltd.

Audiocodes Ltd.

Avaya Communication Israel Ltd.

Avian-Tech Ltd. AVR Communications Ltd.

B.A.I.N. Ltd.

Baobab Technologies (Israel) Ltd.. BATM Adv. Communication

Beta Vicam Ltd.

Beyond Technologies Ltd.

BigBand Networks Ltd.

Bio-Dar Ltd. Bio-Logic Syst. Corp Ltd

BIOMEDIĆOM BioMediCom, Creative Biomedical

Computing Ltd.

Bio-Rad Laboratories Israel

Biosearch Labs Ltd. Bio-Technology General Ltd.

BitBand Technologies Ltd. BRM Technologies Ltd.

Cadent Ltd Cardiosense Ltd.

CareerHarmony Carmel Biosensors Ltd.

CByond Ltd.

Cellect Instruments Ltd. Cerel (Ceramic Technologies) Ltd.

Chipcom Ltd. CHIPX (ISRAEL) LTD.

CI Systems (Israel) Ltd. Cima Nano Tech Israel Ltd.

Cimatron Ltd.

Cleval Ltd. CMT Medical Technologies Ltd. CNOGA Medical Ltd.

CogniFit Ltd. CogniTens Ltd.

Combact Diagnostic Sys. Comet Software Int'l Ltd

Composit Comm. Ltd Compugen Ltd.

Comstream Israel Ltd.

Comsvs Communication & Signal

Processing Ltd Comverse Future Technology

Comverse Network Systems Ltd.

ComView Visual Systems Ltd. Conlog Control Ltd

ConMed Israel Ltd.

Contahal Ltd. ConTIPI

Core Dynamics

CoreFlow - Scientific Solutions Ltd. Creo IL Ltd.

CTP Systems Ltd. Cyclone Aviation Prod.

CvOptics Ltd.

Daisy Systems (is) Ltd. Data ICE Electronics Ltd.

DCL Systems Int'l Ltd. Decision Systems Israel

Degem Systems Ltd. Dimex Ltd. Discretix Technologies DSP Solutions (IS.) Ltd.

Dune Semiconductor Ltd.

APPENDIX

Infogear Technology Ltd.

ECI Telecom Ltd. Ecogen Is. Partnership Edunetics Ltd Edusoft Ltd Elbit Systems Ltd. Eldan Technologies Ltd. Eldar Electronics Electric Fuel Ltd. Electronics Line Ltd. Elisra Electronics Sys. Ltd. Elmo Motion Control Ltd. Elpack 2000 Ltd. Elron Software (2000) Ltd. Elspec Ltd Enzymotec Ltd. Ephyx Technologies Ltd. Epigenesis Ltd. EquipNET Ltd. Espro Information Technologies Ltd. Ester Neurosciences Ltd. Eureka U.S.A. Ltd. Exotech Bio Solutions Ltd ExPlay Ltd. Ferrofluidics Ltd. Fibronics Ltd. Foxboro NMR Ltd. FrantzTech Ltd. Freshpoint Quality Assurance Ltd. FTA Advanced Marine Systems Galai Laboratories Ltd. GalayOr Networks Ltd. Galcon Kfar Blum Gal-El Galileo Technology Ltd. Galram Techn. Industries GamidaGen Ltd. GammaCan Gaya Software Industries Ltd. GE Medical Systems Israel Ltd. GE Ultrasound Israel Ltd. General Microwave Ltd. Gilat Communications Ltd. Gilat Satellite Networks Glucon Medical Ltd. Glycominds Ltd. GMA Comm. (1980) Ltd. Green Care Laboratories Green Vision Systems Ltd. Hadasit Ltd. Harmonic Data Systems Ltd. Hazera Ltd. Helioss Communications Israel Ltd. Highway Info. Tech. Ltd. HI-G-TEK Ltd Holo-or Ltd. Home-Medicine.Com (Israel) Ltd. Hynet Ltd. Hypermed Ltd. I.A.I. Ltd., Mlm Plant I.A.I.- Ramta Division I.B.S. Ltd. I.D. Tech Ltd. I.D.L.Ltd. IBM Israel Sci & Tech Ltd. I-Logix Israel Ltd. Imarad Imaging Sys. Ltd. Imco Ltd IMI Ltd. - Institute for R&D Ltd. Impact Internet Technologies Ltd. (I-labs Impulse Dynamics (Israel) Ltd. Industrial Development Corp.

Infra-Com Ltd. Intech Ltd. Integra5 Ltd. Intergraph Israel Software Development Center I-Sight Ltd. Isomed Ltd. Israel Chemicals Ltd. Istec Ind. & Techn. Ltd. JDC Technologies Ltd. John Bryce (systems) Ltd Jordan Valley Applied Radation Kailight Photonics Kamada Ltd. KiloLambda Technologies Ltd. KLA-Tencor Corp. (Israel) Kollmorgen Servotronix Ltd. Kolnet Systems Ltd. Koor Foods Ltd. Kulicke & Soffa (israel) Laser Industries Ltd. LDS Ltd. Liacom Ltd. Lingosense Ltd. Liraz Systems Ltd. LPT Technologies Lucid Information Tech Ltd Luxembourg Chemicals Ltd Luz Industries Ltd M.L.I. Lasers Ltd Macdermid Israel Ltd. Magic Software Ent. Ltd. Maintek Ltd. Makhteshim Chemical Work Margulead Ltd. MATE - Media Access Technologies Ltd. Matmor Ltd. Mazrek Ltd. Medcon Systems Ltd. Media Tech.& Serv. Ltd. Medical Electronic Systems Ltd. (MES) Medivision Medical İmaging Ltd. Mellanox Technologies Ltd. Mempile Ltd. Mennen Medical Ltd. Mercury Interactive Ltd Merlynet Communication Systems Ltd. Metalsoft Israel Ltd. Micro Components Ltd. - MCS Micro-bit Ltd. Microkim Ltd. MicroSpec Technologies Ltd. Millimetrix Broadband Networks Ltd. Mindsense Biosystems Mindset BioPharmaceuticals Ltd. Minerals & Refractories Mint Technologies Ltd. Misat Ltd. Mitam Ltd. MITAM Ltd. Mobile Info. Sys. Ltd. Motorola Israel Ltd. M-systems Flash Disk Ltd. Nanomed Ltd. NCC Ltd. Ness Ltd. Ness Tec Ophthalmic Systems Ltd. Nester Ltd Neuromedical Systems Ltd

Nexus Telecom Sys Ltd.

North Hills Israel Ltd.

Novellus Systems Inc.

Nice Systems Ltd.

Notal Vision Ltd.

Eureka U.S.A. Ltd. Exotech Bio Solutions Ltd ExPlay Ltd Ferrofluidics Ltd. Fibronics Ltd. Foxboro NMR Ltd. FrantzTech Ltd Freshpoint Quality Assurance Ltd. FTA Advanced Marine Systems Galai Laboratories Ltd. GalayOr Networks Ltd. Galcon Kfar Blum Gal-El Galileo Technology Ltd. Galram Techn. Industries GamidaGen Ltd. GammaCan Gaya Software Industries Ltd. GE Medical Systems Israel Ltd. GE Ultrasound Israel Ltd. General Microwave Ltd. Gilat Communications Ltd. Gilat Satellite Networks Glucon Medical Ltd. Glycominds Ltd. GMA Comm. (1980) Ltd. Green Care Laboratories Green Vision Systems Ltd. GTEK Hadasit Ltd. Harmonic Data Systems Ltd. Hazera Ltd. Helioss Communications Israel Ltd. Highway Info. Tech. Ltd. HI-G-TEK Ltd. Holo-or Ltd. Home-Medicine.Com (Israel) Ltd. Hynet Ltd. Hypermed Ltd. I.A.I. Ltd., Mlm Plant I.A.I.- Ramta Division LB.S. Ltd. I.D. Tech Ltd. LD L Ltd. IBM Israel Sci & Tech Ltd. I-Logix Israel Ltd. Imarad Imaging Sys. Ltd. Imco Ltd. IMI Ltd. - Institute for R&D Ltd. Impact Internet Technologies Ltd. (I-labs Impulse Dynamics (Israel) Ltd. Industrial Development Corp. Infogear Technology Ltd. Infra-Com Ltd. Intech Ltd. Integra5 Ltd. Intergraph Israel Software Development I-Sight Ltd. Isomed Ltd. Israel Chemicals Ltd. Istec Ind. & Techn. Ltd. IDC Technologies Ltd. John Bryce (systems) Ltd Jordan Valley Applied Radation Kailight Photonics Kamada Ltd. KiloLambda Technologies Ltd. KLA-Tencor Corp. (Israel) Kollmorgen Servotronix Ltd.

Kolnet Systems Ltd.

Kulicke & Soffa (israel)

Koor Foods Ltd.

Laser Industries Ltd. LDS Ltd. Liacom Ltd. Lingosense Ltd. Liraz Systems Ltd. LPT Technologies Lucid Information Tech Ltd Luxembourg Chemicals Ltd Luz Industries Ltd. M.L.I. Lasers Ltd. Macdermid Israel Ltd. Magic Software Ent. Ltd. Maintek Ltd. Makhteshim Chemical Work Margulead Ltd. MATE - Media Access Technologies Ltd. Matmor Ltd. Mazrek Ltd Medcon Systems Ltd. Media Tech.& Serv. Ltd. Medical Electronic Systems Ltd. (MES) Medivision Medical Imaging Ltd. Mellanox Technologies Ltd. Mempile Ltd. Mennen Medical Ltd. Mercury Interactive Ltd Merlynet Communication Systems Ltd. Metalsoft Israel Ltd. Micro Components Ltd. - MCS Micro-bit Ltd. Microkim Ltd. MicroSpec Technologies Ltd. Millimetrix Broadband Networks Ltd. Mindsense Biosystems Mindset BioPharmaceuticals Ltd. Minerals & Refractories Mint Technologies Ltd. Misat Ltd. Mitam Ltd. MITAM Ltd. Mobile Info. Sys. Ltd. Motorola Israel Ltd. M-systems Flash Disk Ltd. Nanomed Ltd. NCC Ltd. Ness Ltd. Ness Tec Ophthalmic Systems Ltd. Nester Ltd. Neuromedical Systems Ltd Nexus Telecom Sys Ltd. Nice Systems Ltd. North Hills Israel Ltd. Notal Vision Ltd. Novellus Systems Inc. Novia Pharmaceuticals Ltd. Numalog Ltd. Nutricognia Ltd. Oceana Integ. Tech Ltd. Octel Comm. (Israel) Ltd Ogdan Systems Ltd. Ogentech Ltd. Olive Software Ltd. Omikron Scientific Ltd. OMRI Laboratories Ltd. Omrix Biopharmaceuticals Ltd. Onset Technology Ltd. Onyx Technologies Ltd. Opgal Optronic Ind. Ltd. Orbit F.R Engineering Ltd. Orckit Communications Ltd. Ordacard HiTech Ind. Ltd Orex Computed Radiography Ltd. Orgenics Ltd. Oridion Medical Ltd.

Micro Components Ltd. - MCS Micro-bit Ltd. Microkim Ltd MicroSpec Technologies Ltd. Millimetrix Broadband Networks Ltd. Mindsense Biosystems Mindset BioPharmaceuticals Ltd. Minerals & Refractories Mint Technologies Ltd. Mitam Ltd. MITAM Ltd. Mobile Info. Sys. Ltd. Motorola Israel Ltd. M-systems Flash Disk Ltd. Nanomed Ltd. NCC Ltd Ness Ltd. Ness Tec Ophthalmic Systems Ltd. Nester Ltd. Neuromedical Systems Ltd Nexus Telecom Sys Ltd. Nice Systems Ltd. North Hills Israel Ltd. Notal Vision Ltd. Novellus Systems Inc. Novia Pharmaceuticals Ltd. Numalog Ltd. Nutricognia Ltd. Oceana Integ. Tech Ltd. Octel Comm. (Israel) Ltd Ogdan Systems Ltd. Ogentech Ltd. Olive Software Ltd. Omikron Scientific Ltd. OMRI Laboratories Ltd. Omrix Biopharmaceuticals Ltd. Onset Technology Ltd. Onyx Technologies Ltd. Opgal Optronic Ind. Ltd. Orbit F.R Engineering Ltd. Orckit Communications Ltd. Ordacard HiTech Ind. Ltd Orex Computed Radiography Ltd. Orgenics Ltd. Oridion Medical Ltd. Ornet Ltd. Or-X Ltd. Osnat Paradigm Geophysical Ltd Paragon Communications Ltd. Peptor Ltd. Persys Technology Ltd. Pharmos Ltd. Pixel Broadband Studios Ltd. Pladot Ein Harod Meuchad Plasma-Laser Technologies Ltd. Plasma-Laser Technologies Ltd.

Plasma-Laser Technologies Ltd.
Plasma-Laser Technologies Ltd.
Plastopil Hazorea
PMS (Israel) Ltd.
Polyetian Composites Ltd.
Polyoptics Ltd.
PrimeLayer Technologies Ltd.
Prochon Biotech
Proneuron BioTechnologies Ltd.
ProteOptics

Provigent Ltd. QBI Enterprises Ltd. R3-Real-Time Radiography Readout Ltd.

Rad Computers Ltd. Rad Network Devices Ltd

Rada Ltd. Radcom Ltd. Radvision Ltd.

Ramot TAU & Deutch Ind. RaySat Israel Ltd

Ready Systems (Israel) Ltd. Real Vision Ltd.

RED-C Optical Networks Ltd. Reiter Software Systems Remon Medical Technologies Ltd.

Resolute Networks Ltd. Ricor Ltd.

Riverdeep Interactive Learning Ltd.

Robomatix Ltd. Rokar International Ltd. Ronipal Ltd.

Rosetta Genomics Ltd. Rotem Ltd. Rotlex Optics Ltd. S.E.S. Ltd.

SAE Afikim Com Dairy Sys Saifun Semicond. Ltd.

Sandisk Israel SandLinks SAP Labs Israel Ltd. Sapiens Technologies Ltd

Savyon Diagnostics Ltd. Schema Ltd.

Scitex Corporation Ltd. Sensiv Ltd.

Sensotech Automotive Ltd. Serum Tech. Ltd.

Shellcase Ltd. Shiron Satellite Communications Ltd.

Simtech Ltd. Simulog Ltd. Sivan Ltd.

Sizary Materials Purification Ltd. Sky Mobile Media (Israel) Ltd.

SLP Ltd. Sogo Electronics Ltd.

Soundesigns Comm. System SpaceLogic Ltd. SRD Medical Ltd. Steag CVD Systems Ltd.

Sterling Software Ltd. STMicroelectronics Inc.

Surf Communication Solutions Ltd.

Synel Systems Ltd. Synopsis Systems Ltd.

Systel Development & Industries Ltd.
Tadiran Scopus Digital Video Compression

Taldor Computer Sys. Ltd Tapi Information Systems TaskMail Ltd. TAT Technologies Ltd. TDSoft Ltd.

TDSoft Ltd.
Tecnomatix Ltd.
Tedea Ltd.
Telegate Ltd.

Telematics Wireless Ltd. Telrad Networks Ltd. TeraOp Ltd.

Teva Pharmaceutical Ltd.

Texas Instruments (Israel) Cable Broadband

Communications Ltd. Tidex Systems Ltd Time And Frequency Ltd.

Timex Development Ltd. Total Graphics Ltd. Tower Semiconductor Ltd.

TrainVision Transky Ltd. TTI Team Telecom Inc. Ubique Ltd. Ultracom (Israel) Ltd. Unipier Mobile Ltd. Unipower UPC Ltd. United Medical Sys. Ltd. Univercol-Nirlat

Valor Systems Ltd. VCON Telecommunication Ltd.

VDonet Corporation Ltd.
Veterix Ltd
VI[Z]RT Ltd.
Viryanet Ltd.
VisAccess Ltd.
Vishay Israel Ltd.
Visionix Ltd.

VYYO Ltd. WaveAccess Ltd. WideMed Ltd. Xanadu Ltd.

Visus Ltd

Zoran Microelectronics

U.S. Grantees

21st Century Robotics 3M Unitek A. Gage Inc. Abiomed Inc.

Accelrys Inc.

Accurate Chem & Sci Corp ACMI Inc.

Acoustiguide Corporation

ACT Networks Inc. Adacom Corporation ADC Magnetic Controls Co Advanced Power Tech Inc. Advanced Technology Intl

Aerotrans Corporation AFP Imaging Corporation

Agar Corporation Agilent Technologies Inc. Alcide Corporation Allpoints Systems Inc. Alpha Industries Inc.

AlphaMicron Inc. Altec Lansing Tech. Inc. Altera Corporation AMAT - Applied Materials

AMAT - Applied Materials Amcol International - Nanocor Inc. America Online Inc.

American Paging Inc. American Red Cross (ARC) Analog Devices Inc.

Animed Inc. Apogee Technology Inc. Apollo Laser Inc. Applied Imaging Corp. Applied Materials Inc.

Aquila Technologies Inc. Archer Daniels Midland Company (ADM)

ARINC Inc. Arkema Inc. Arraycomm Inc. Arris International Avaya Inc. AVR Sonovation Inc.

Baird Corporation
Bausch & Lomb (blp) Inc.
Bay Networks Inc.
Bayer Pharmaceutical Division

BBN Systems & Techn Corp Becton Dickinson and Company Becton Dickinson Ophthalmic Division

Berlitz Int'l. Inc. Beta Scientific Inc. Beth Israel Deaconess Medical Center

Bio-Logic Systems Corp. Bio-Rad Laboratories Inc. Bogen Communications Inc Boole And Babbage Inc. Bosch Telecom Inc.

Boston Whaler Inc. Brinkmann Instrument Inc Brooktree Corporation

Brooktrout Technology Caere Corporation Inc. Canberra Industries Inc Canoga Perkins Corp. Capella Photonics Inc.

Carl Zeiss Meditec Inc. Cassling Diagnostic Imaging (CDI)

Cedars Sinai Health System (CSHS) Celesco Inc. Chip Express Corporation

Chipcom Corporation Chromadex Inc. Ciba Specialty Chemicals Corp.

Cidco Inc.
Cincinnati Electr. Corp.
Ciphergen Biosystems Inc.
Circe Biomedical Inc.
Cirrus Logic Inc.
Cleveland Clinic Foundation

Cleveland Clinic Foundation
Codex Corporation
Coherent Components Inc.
Comp. Lodging Systems
Compaq Computer Corporation

Compaq Computer Corporation Computer Methods Corp. Comsat RSI Inc.

Comverse Technology Inc Condor Computer Corp. ConMed Corporation Console Systems Inc. Continental Cablevision

Craig Hospital / Adaptive Equipment Co.

Craig Hospital / Adaptive Equ Creative Labs Inc. Cromemco Inc. Cygna Corporation Cylink Corporation Daka Technology LLC Daisy/Cadnetix Inc. Data General Corporation Data General Corporation David Systems Inc. DCT Utilase Systems Decision Systems Inc. DeLaval Inc. Designatronics Inc. Diasonics Ultrasound Inc

Diatech Diagnostics Inc Digital Equipment Corp. Digital Pathways Inc. Display Technologies Inc Dixie Steel Corporation DSP Solutions Inc. DxRay Inc.

EA Systems Inc. Eastman Kodak Company ECI Telecom Inc.

Ecogen Inc. EG&G Astrophysics Research Corporation EG&G Power Systems Inc.

Electro Scientific Industries Electrocom Automation Electronic Arts Inc. Electrosound Group Inc. Elron Software Inc. Embrex Inc.

APPENDIX

Integrated Device Tech'y

Integrated Network Corp.

Intelicoat Technologies, LLC

Emcore Corporation Encore Real Time Computing Inc. Enforsys Systems Inc. Enzo Biochem Inc Equator Technologies Inc. Eton Systems Inc. Evans & Sutherland Corp. Executone Inf. Sys. Inc. FAAC Inc. Fairchild Data Corp. Fairchild Semiconductors Farrall Instruments Inc. Fastcomm Comm. Corp. Ferno Washington Inc. Ferrofluidics Corp. Fibronics Int'l Inc. Flextronics Inc Flextronics International FMC Corporation Fore Systems Inc. Foxboro Analytical Sys. Frantz Medical Develop. Frequency Electronics G.B.I. International Inc Galil Motion Control Inc Gaston County Company GE Medical Systems GE Security GE-GRC Gelesis Inc. Gemaco Playing Card Company Gen Mill Rest Group Inc General Datacomm Inc. General Instrument Corp. General Microwave Corp. General Refractories Genzyme Transgenics Corp Geotek Communications Inc Gerber Garment Tech. Inc Gerber Scientific International Inc. Germania Dairy Auto, Inc. Gibco Div., Dexter Corp. Glenavre Electronics Inc. Globecomm Systems Inc. GNB Technologies Inc. Graphic Science Corp. GreenFuel Technologies Corp. Griffin Corporation Guidant Corporation Harmonic Inc Harper Collins Publisher Harris Microwave Communications Division Harris Adacom Corp. Harris Corp./Digital Tel Harris Corp./Semiconductor Harris Corporation HCC Industries Inc. Heinle & Heinle High Voltage Eng. Corp. Honeywell International Inc. I.T.E. Inc. IDEO Global iDirect Technologies IIMAK - International Imaging Materials Inc. ILOG Inc. I-Logix Inc. Infinera Corporation Infrared Solutions Inc. Inrange Technologies Corp.

Interact Corporation Interactive Systems Inc. Intergraph Computer Systems International Systems Services Corp. Intervoice-Brite Inc. Interwave Communications Inc. Int'l Imaging Systems Int'l. Rectifier Corp. Intl. Teletrac Systems Iris Graphics Inc. Isis Pharmaceuticals Inc. Isocor Isra-Tech Dev't Corp. JDS Uniphase Corporation Johnson & Johnson Professional Inc. Kesmai Online Games Kineret Engineering KLA Instruments Corp. Kollmorgen Motion Group Kollsman Inc. Kopin Corporation Kulicke & Soffa Ind. Inc L3 Communications - Satellite Transmission Systems L-3 Communications - Telemetry West Lansco Inc Larscom Inc. Laserscope Lasertel Inc Learn Technologies Interactive Lemmon Company Leo Beiser Inc. Level 8 Systems Inc. Liacom Inc. Life Therapeutics Limco-Airepair Inc. Lockheed Martin Ocean Logica-Data Architects LSL Biotechnologies Inc Lucent EN Corp. Luz International Corp. Macdermid Incorporated Magic Software Ent. Inc Manpower Inc. Martin Marietta Data Sys Meganet Corporation Mennen Medical Inc. Mercury Graphics Corp. Mercury Interactive Corp Metalsoft Inc. Metron Technology Distribution Corporation Milgo Solutions Inc. Millitech Corporation Molex Fiber Optics, Division of Molex Inc. Motorola Inc. Mountain View Pharmaceuticals Inc. MSA Company Musculoskeletal Transplant Foundation Napco Security Syst Inc NCR Corporation nCUBE Corporation Network Associates Inc. Neuromedical Sys. Inc. New Horizons Diagnostics North Hills Electronics Novell Inc. Novellus Systems Inc. Nuera Communications Inc. Numar Corp. OCLC Online Computer Library Center Inc.

Office Channel Inc.

Open-Silicon Inc.

Ophthalmic Imaging Systems Inc. Orbit Advanced Tech. Inc Orbot Incorporated Oread - Company closed Orgenics Intnl. Inc. Ortho-Clinical Diagnostics Inc. Pacific Micro Data Inc. Packard Bell Nec Inc. Pals Inc. Para Research Inc. Pentacom Inc. Perceptronics Inc. Pharmacopeia Inc. Pharmos Corporation Phibro Animal Health Corporation Philips Semiconductors Phoenix Technologies Ltd Plastigone Technologies Plato Learning Inc. PMC-Sierra U.S. Inc. Policy Management System Polyair Corp. Polychrome Corporation Precision Circuits Inc. Prentice-Hall Software PRI Automation Inc Progeny Systems, LLC Projects In Knowledge Inc. Quintiles Transnational Ltd. (QTRN) Rad Data Communications Inc. Radcom Equipment Inc. Radionics Inc. Radyne Comstream Read-Rite Corp. Ready Systems Inc. Remec Inc. Richardson Electronics Ltd. Robin Medical Inc. Roland Corporation U.S. Sabeus Sensor Systems Inc. Sandisk Corporation Sanmina-SCI Corporation Sapiens USA Inc. Sceptor Industries Inc. Schott Glass Technologies Inc. Scitex N America Corp Sensormatic Electronics Corp. Ser Solutions Inc. Sharplan Lasers Inc. SHL Systemhouse Corp. Siemens Medical Sys. Inc Silicon Valley Group Inc. Silverplatter Info. Inc. Simulog Inc. Smithkline Inc. (sbcl) Software Center Inc. Sonoma Systems Spacelabs Healthcare Inc. Spacenet Inc. Spacenet Inc. Spansion LLC Specialty Minerals Spectragraphics Corp. SPI Microtech Inc. Square D Standard Microsystems Startel Corporation Steag CVD Systems Inc. Sterling Software Inc. STMicroelectronics Inc. Stratex Networks Stratus Computer Inc. Sugen Inc. Summit Technology Inc.

Sunrise Medical Inc. Supco Inc. Sygen International Syllogy Corporation Symbol Technologies Inc. Syntel Inc. System Programming Ltd. Syva Company Tasco Inc. TCSI Corporation Technology Control Services Inc. Tecnomatix Technol, Inc. Tekelec Inc. Tektronix Inc. Telco Systems Inc. Telcordia Technologies Teledyne Telematics Intnl. Inc. Telrad Telecomm. Inc. Tencor Instruments Tender Loving Care Inc. Tesco Engineering Inc. Texas Instruments Inc. The BioSolution Group The Data Group Inc. Thermo Electron Corporation Timex Corporation TLSI Tracor Aerospace Inc. TranSwitch Corp. TriQuint Semiconductor Inc. Ultracom Inc. Ungermann-Bass Inc. Unify Corporation Unimation/Westinghouse United Medical Sys. Inc. Universal Sonics Corp. Univision Tech. Inc. **URO-Care Laboratories** USBC Capital Corporation USWeb Corporation Utilase Inc. Valor Systems Inc. Varian Medical Systems Inc. Veeco Instruments Inc. Verilink Corporation Vesuvius Corporation VI[Z]RT Inc. Vishav Intertech, Inc. Visonic Inc. VTel Corporation W.L. Gore & Associates Inc. WatchMark Corp. Watsco Inc Welch Allvn Inc. Weldmation Inc. Westell Weston International Wheelabrator Water Technologies Wicat Systems Inc. Wideband Data Corp. Wings For Learning Inc. Workstation Tech. Inc. Wynn's Climate Sys. Inc. Xoma Corporation Xyvision Design Systems Zenith Electronics Inc. Zoran Corporation