

Israeli Technology's Contribution to the World

Israel may be a small country, but its contribution to the world of technology has been immense. As I see the impressive quantity and level of innovation coming out of my native country year after year that truly makes a difference around the world, I am proud to be an Israeli.

The roots of Israel's high-tech achievements lay in its veteran defense industries. Stemming from the new country's need to defend itself, in the earliest days of the state, companies like Israel Aviation Industries, Rafael, Elbit and Tadiran began producing advanced technologies for defense products for the IDF; eventually growing into an international export industry of defense-related products. Today, these companies spearhead the latest technologies in weapons systems and continue to set new standards for technologically advanced defense systems around the world.

In the 1970's, as it became clear that Israel's technological know-how could be applied to uses far beyond the military, defense giants spun off companies to develop and produce civilian products. At the same time, international firms established local research and development centers in Israel – including

innovate. The world's largest chip maker relies on Israeli talent for many of its breakthroughs: it was at the Intel facilities in Haifa and Petach Tikva that the Pentium M chip was created. Pentium M lies at the heart of the Centrino - the collection of wireless components that Intel made synonymous with Wi-Fi broadband access. Without Centrino, there would not be Internet cafes or hotels for customers to surf the web on wireless networks while sipping coffee or relaxing with room service. Additional breakthroughs are on the horizon as Israeli researchers at Intel's Jerusalem facility are working on a chip that will enable computers to operate at 10 times the current speed.

Other important companies that rely heavily on their Israeli development facilities are Cisco and Microsoft. Most of the Windows NT operating system was developed by Microsoft-Israel.

Meanwhile, the number of home-grown Israeli companies has mushroomed. With thousands of high-tech companies and startups opening practically every day, Israel has the highest concentration of technology companies in the world outside of Silicon Valley.

Israeli companies have led the way in numerous areas. Among them is my own company, NetManage. Back in 1990 we helped kick off the Internet revolution by developing the first commercially available TCP/IP software for Windows based PCs called WinSock. Our software was the first to make possible what we today take for granted – the ability to connect our PCs to the Internet. Soon after WinSock we released Chameleon, one of the very first e-mail packages and Internet browsers. We are still providing leading solutions today,

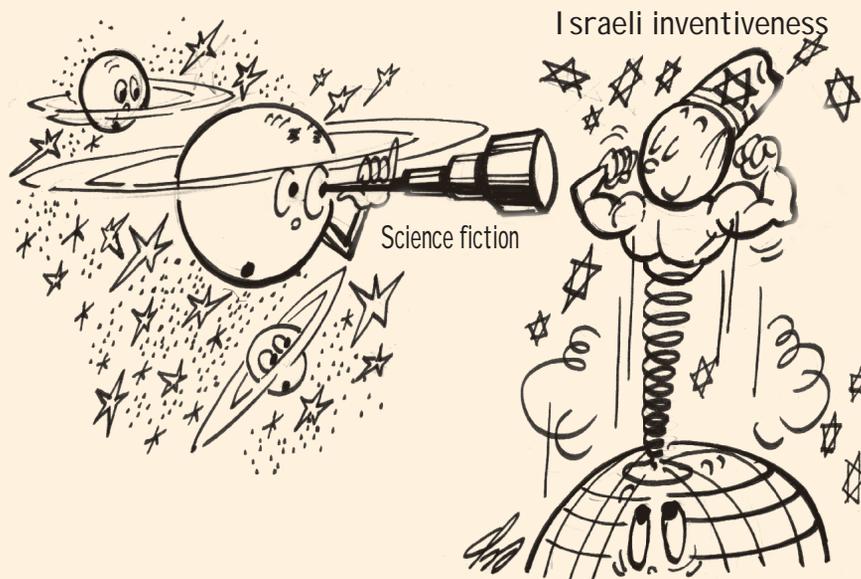
focusing on helping organizations to integrate their back-end business systems and allowing users to quickly and easily access data and information systems while at work, via the internet or even while they are moving around, using a standard mobile phone or handheld PC.

An Israeli company pioneered the field of Internet security.



Zvi Alon

President & CEO,
NetManage



Motorola, IBM, DEC, and National Semiconductors – and exposed Israelis to the burgeoning fields of telecommunications and semiconductors.

Perhaps the most significant presence in Israel is Intel. Israeli ingenuity has contributed significantly to Intel's world dominance, which is based on its continuing ability to

Check Point Software Technologies, with young CEO Gil Shweid at the helm, invented the products which have set industry standards in internet security, protecting and preventing attacks at both the network and application levels. Checkpoint burst onto the scene in 1994 and hasn't stopped growing since. With a broad range of software solutions, including firewalls and various products that integrate network management and security, the multi-billion dollar company is considered the current world leader in network security software for enterprises. The FireWall-1 and VPN-1 software has been installed at more than 300,000 sites globally, including almost every Fortune 500 company. Checkpoint's premier product, Firewall-1, has never been breached. We wouldn't be able to chat online if it hadn't been for four young Israelis who developed an application for the Internet that allowed users to send text messages to each other in real time. Working from a small start-up called Mirabilis in 1996, only a year and a half after ICQ was invented, this small, unknown company was sold to America Online for a reported \$400 million – and AOL Instant Messenger was born. This was a true innovation that completely revolutionized the way the Internet is used, and pioneered an architecture that has been embraced universally. Most recently, another Israeli company, M-Systems, has pioneered flash data storage – a new form of data storage that makes it possible to miniaturize and store large amounts of computer data on a silicon chip. Now nearly every computer user has a Disk on Key – the tiny, portable, virtual hard disk that was developed by the company.

Israeli innovation goes beyond the computer – into our homes and personal lives. For example the technology with which companies beam television programming to millions of homes via satellite was developed at NDS-Israel, part of Rupert

Murdoch's News Corporation media empire and the dominant provider of encryption services to providers of pay-per-view television by satellite. The company's technology, both hardware and software, scrambles the television company's pictures and ensures that only paid subscribers receive the pictures.

NDS has also pioneered the use of Smart Cards – a credit card-sized piece of plastic with an embedded computer chip – for its so-called conditional access technology. Given out to subscribers, smart cards can be programmed to decode only those services that have been paid for. This gives the broadcaster greater flexibility to add new features and services without having to replace the top box set used by the customer to receive his pay television service.

Israeli technology is also saving lives, as the country's biological and medical minds have joined forces with technological innovators to create drugs and medical devices by thinking "outside the box" – an Israeli specialty.

One of the most successful devices developed in Israel is Given Imaging's PillCam - the first ingestible video camera, which is so small it works through the body like a pill. Designed to photograph the small intestines from inside the body, PillCam helps doctors diagnose gastrointestinal diseases like Crohn's disease and Celiac disease, as well as benign and malignant tumors and cancers of the small intestine. The PillCam is used in 60 countries and has become the 'gold standard' in diagnosing disorders of the small intestine.

These accomplishments are just a few examples of what Israel has achieved in its brief 57 years of statehood. As I see it, these are merely the first chapters in what will be a long list of Israeli contributions. And I am confident that when it comes to making life better through technological innovation – the world will continue to look to Israel.

The Technological Incubators

and their Contribution to Israel's Industry

Israel is known throughout the world for its excellence in the field of innovation and technological entrepreneurship.

The Technological Incubators Program, operating under the Office of the Chief Scientist of the Ministry of Industry, Trade and Labor since 1991, has had a major contribution in creating an entrepreneurial culture in Israel, specifically a technological entrepreneurial culture.

The program consists of 24 Incubators which are located throughout Israel. Most of them are located in peripheral and development regions. Incubators are distributed from the northern tip of Israel in Kiryat Shmona all the way to Sde Boker in the Negev, and operate in diverse locations such as

the Golan Heights, Migdal Ha'emek, the Jordan Valley, Carmiel, Yokneam, Haifa, Hadera, Netanya, Tel-Aviv, Ariel, Jerusalem, Kiryat Arba, Kiryat Gat, Ashkelon, Ofakim, Beer-Sheva and Dimona.

The Technological Incubators Program enables an entrepreneur with a technological idea to develop that idea into a commercial product.

The goal is to jump-start innovative technological ideas at an early stage, when private investors are reluctant to invest in



Rina Pridor

Program Director
Technological
"incubators"