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Israel is a country of limited natural and financial resources. On the other hand it has been for several years on the forefront of research and development in advanced technologies. Israel is following the example of many other small countries that has sharply defined scientific and technological policies as a way of enhancing its competitive position and counterbalancing the limited natural resources that they have. The two main reasons behind the success of the

Israeli high technology industry are the unmatched pool of highly skilled workers and the world-renowned research and academic capabilities that the country has. Israeli authorities encourage the establishment of centres of excellence, whereas the scientists and engineers working on them constantly struggle with the challenge of quickly developing new and innovative solutions.

The Israeli research and development (R&D) expertise has throughout the years expanded out of the military sphere where it was firstly concentrated. Currently universities and research institutes play an equal part in expanding the technological base of the country as dozens of government and public research institutes, medical centres conduct R&D. The most important of them are: the Technion and the Hebrew University the "Bar-Ilan University, Tel Aviv University, the University of Haifa the Ben-Gurion University of the Negev, the Hadassah Medical Center in Jerusalem and the Hebrew University's Faculty of Agriculture in Rehovot. Furthermore, in several cases, there is cooperation between high tech industrial parks and neighbouring universities. The most significant examples are: the Kiryat Weizmann Industrial Park and the Weizmann Institute in Rehovot; Jerusalem's Har Hotzvim and Malkah Technological Parks and the Hebrew University; the MATAM High Tech Park in Haifa and the Haifa Technion; and the Atidim High Tech Park and Tel Aviv University.

Israel is definitely a success story when it comes to R&D. This is highlighted by the fact that is 2nd (behind only the United States) on a per capita basis in its ability to generate new, technology-based companies with innovative market-focused products. One of the reasons of this success is without a doubt the importance that the Israeli government showcases in R&D. The government offers generous assistance to both high technology and other companies, to subsidize R&D and capital spending. According to the Israeli Ministry of Foreign Affairs the Office of the Chief Scientist (OCS) of the Ministry of Industry and Trade disburses to companies some \$400 million annually in grants that cover between 30% and 66% of total development costs. The OCS recoups about \$100 million per year in royalty payments from



subsequent sales of successful products. As a result the amount that the country spent on research and development (R&D), in relation to its Gross Domestic Product (GDP), is among the highest in the world.

Apart from R&D the large pool of qualified personnel that Israel has is another reason why the country is performing well in advanced technologies. It is indicative that more than 20% of the country's workforce is university graduates.



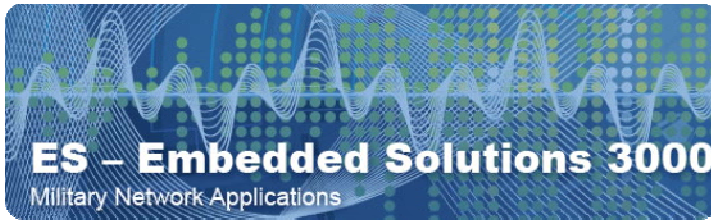
An unusual source of talented people comes from the Israel Defence Forces. The army plays the role of a “big school” as it actually performs a nationwide screening program through which identifies young people with talent in advance technologies and puts them through rigorous training via elite programs and other military functions. Additionally, the army helps young people to establish personal networks that often form the basis for later partnerships in industry. Therefore in Israel, you can often find co-founders of many high tech companies

began working together in the same army unit, something that can be fairly characterised as unique.

Israeli companies are global leaders in developing and implementing high technology solutions. They have developed the ability to foresee market needs and devise innovative, cost-effective software products in a rapid and flexible way. Skilled workforce and advanced R&D capabilities has been the key elements behind this procedure.

Kyriazis Vasileios

Epicos Newsletter Head Editor



[Embedded Solutions \(ES\) 3000](#) is an Israeli company that is specialized in supplying innovative, integrated turnkey solutions in systems and software engineering,

particularly in military network projects, the security and aviation industries. The company works with the Israeli Air Force and other leading military security companies. Embedded Solutions was founded in 2001 by Dr. Larisa Tsirinsky as a private business specializing in systems and software engineering for military network applications. Currently is a stable company with a bright future ahead something that is highlighted by the fact that the company's revenues are doubling every year.

Embedded Solutions has a team of 35 of Israel's top engineers and offers to its customers, vast experience and knowledge of complex military communication networks combined with a command of civilian communication standards and protocols. Therefore, is perfectly placed to address the specialized military network needs of every customer. Additionally, Embedded Solutions has particular expertise in adapting civilian systems for military applications. It is well-known that military networks demand more complex architecture than civilian systems for a number of reasons, including unstable end-to-end connectivity, strict prioritization requirements and traffic and protocol restrictions. Embedded Solutions takes civilian standard systems and adapts them into compatible military communication applications.

As it is already mentioned Embedded Solutions creates advanced products for military network applications and ground-airborne data link systems. Some of these products are:

#### [Smart Gateway \(ES-SG1\)](#)

Smart Gateway is a seamless network entity optimizing and controlling military communication, including data-link to/from ground.

ES-SG1 may be implemented as an embedded software component on one of the application machines residing at a communication junction, or as a stand-alone hardware component.



The modular structure of ES-SG1 allows you to easily add, remove and configure services.

ES-SG1 is a hard, real-time product. Adds latency to inspected network traffic depending on the service applied. Inspection time is negligible compared to data transportation time.

### [Multi-Channel Real-Time Recording System \(ES-MCRS\)](#)



This is a stand-alone hardware component with embedded software designed for long-term, synchronous recording of multiple channels with high data rates. Both military and regular specifications are available.

The MCRS's modular structure and variety of external interfaces allow easy integration into the customer's environment.

The MCRS real-time data recorder and playback systems, for analog and digital applications, offer sustained recording at rates up to 500 Megabytes/sec. These high-speed recorders achieve the performance rating in both commercial and ruggedized environments. They utilize Fiber Channel storage area network media in JBOD or RAID configurations from cost-effective commercial to rugged and solid-state storage.

### [High-Performance Multi-Channel Ethernet Recording System \(ES-MCERS\)](#)

This is a seamless network entity providing real-time recording of IP traffic.

ES-MCERS is implemented as a stand-alone hardware component.

This product is a combination of the first two products, i.e. the Smart Gateway with the added advantage of high-speed, real-time Ethernet channels recording ability. That is why all (or selected) ES-SG1 features are available. ES-SG1 bound with ES-MCERS provides a complete solution for military communication systems – traffic and protocols optimization, bandwidth management, control and recording

Embedded Solutions has been involved in an extensive range of military network applications. Amongst them are:

#### **Flight Control Computer**

- Real-Time Mission Synchronization
- Command and Control System
- Real-Time Data Processing, Monitoring and Recording
- Bandwidth Management



#### **Real-Time Equipment Tester**

- Short-Latency (40 µsec Response Time) Event-Driven Application
- Automatic Generation of Test Scenarios
- User Defined Format of Test Reports

### **Automatic Network Configuration**

- Automatic Network Equipment Configuration
- Automatic Network End-Points Configuration and Control
- Redundancy Logic

### **ATM Communication System**

- Pure ATM Interface
- “TCP/UDP tunnel” over ATM
- Synchronization and Data Management
- Technical Logging



Embedded Solutions provides the highest levels of effective, high-precision technology and product performance while offering efficient and quality services. Additionally, Embedded Solutions has all the advantages of a small and agile company. It takes decisions quickly and acts efficiently with a quicker turnaround time for project completion than larger companies. Currently, the company is ready to share its expertise with the world. With contacts in a

number of countries, it is now looking for clients and joint ventures in Asia, North America and Europe in order to further expand its impact in the global market.

[To contact the company Press Here](#)





Mr. Jacob Shuhami CEO of Embedded Solutions 3000 and Dr. Larisa Tsirinsky the Founder and CTO of the company stated on an exclusive interview given to Epicos that: " The company is always investing in new technology in its areas of dealing for improving the existing solutions and creating new solutions that will be announced."

- Could you please describe the current place of Embedded Solutions in the national and international market?

Embedded Solutions is a well known innovative solutions provider in the arenas of Military Communication, DSP Algorithms, Data/Video/Audio Recorders in the national military industry and market. The company is in a process of introduction to the international market in the same areas of solutions and products with cooperation of well known international companies.



- What are the main aerospace and defence products that Embedded Solutions is manufacturing?

The main products are:

- A SMART GATEWAY for solving the problem of using commercial protocols and products in military communication data links and networks.
- A family of military Data/Video/Audio Recorders.

Please see company's website: [www.embedded-solutions.co.il](http://www.embedded-solutions.co.il) for all products descriptions.

- Could you please name the main customers of Embedded Solutions?

The main customers of Embedded Solutions are the " Military and Security Products Providers and Users" in the national arena like Tadiran, Elta, Elbit, IAI, Rafael, Elisra, Mabat, Malat, MOD, IDF, etc.

- What are the next steps and priorities of the company?

The main next step and priority of the company is to translate and transfer the success in the



national market to the international market, keeping the local, ongoing success with the existing very positive slope of sales and cooperation, with all main players.

➤ What are the main technological and administrative advantages of Embedded Solutions?

The main technological and administrative advantages of Embedded Solutions are:

- Expertise in the areas the company is dealing backed by tens of years of experience in the military market with many solutions and products that have been introduced and are serving the armed forces.
- Very strict methodological professional work that enables the company to always meet the so requested combination of Spec&Schedule.
- Efficient and lean administration that enables fast and best decision making processes for the advantage of the customers.



➤ Is the company currently investing in a new technology?

The company is always investing in new technology in its areas of dealing as mentioned for improving the existing solutions and creating new solutions that will be announced.

➤ Is there a specific country or region that Embedded Solutions would like to expand?

Embedded Solutions is seeking to have cooperation in any region that is interested in its technology and solutions.

➤ Could you please make a comment about the international Aerospace and Defense Industry and its orientations?

We believe that the international Aerospace and Defense Industry is going in huge steps toward better, simpler, more efficient and cheaper communication solutions in the military arena as is done in the commercial market – here is one main expertise of Embedded Solutions that will help to make it happen.





Epicos "Project Opportunities" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

[For Further Information Press Here](#)

### **Development and production of “under-pressure” patient transportation bag and “over-pressure” face-guard for protection against biological agents’ threat**



A leading company in the design and manufacture of medical emergency products for Civil and Military use alike proposes the design and development of an “under-pressure” transportation bag for the safe transportation of highly virulent patients contaminated from biological warfare agents and an “over-pressure” face-guard for the personnel working in biologically contaminated areas and in contact with contaminated persons. The two products will meet several related military as well as homeland security applications.

[For Further Information Contact our ICO Department](#)

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### **Production of small and medium size aluminium and steel alloys machined parts and components for the aerospace and defense industry**



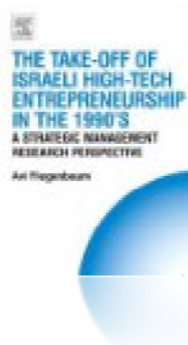
A company with experience in machined parts manufacturing for several aerospace programs is proposing, in the frame of an offset program, the collaboration with a Prime or lower tier company for the outsourcing/subcontracting of small and medium size aluminium and steel alloys machined parts and components manufacturing for the aerospace and defense industry.

[For Further Information Contact our ICO Department](#)

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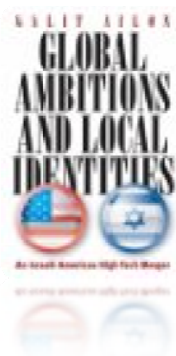


The Take-off of Israeli High-Tech Entrepreneurship During the 1990's: A Strategic Management Research Perspective (Technology, Innovation, Entrepreneurship and Competitive Strategy) Avi Fiegenbaum



What are the five factors that contributed to Israeli high-tech success? This is what this book is trying to describe and explain. Within less than a decade, during the 1990s, the state of Israel established its global high tech sector. The number of startups rose to almost 3,000. Total venture capital available reached approximately \$ 3 billion. Israeli firms trading on NASDAQ climbed to 120 with aggregate market value of approximately \$120 billion, twice the Israeli GNP. This book emphasizes the multilevel nature of this development from a strategic management perspective.

Global Ambitions and Local Identities: An Israeli-american High-tech Merger by Galit Ailon



Usually the procedure of international mergers of companies is perceived as a purely financial issue without taking into consideration the social side effects that it has. Usually we fail to understand what this meant for the people involved. However, attitudes are gradually changing. This study of a successful Israeli high-tech company's merger with an American competitor offers an important contribution to a better understanding of the social and personal ramifications of mergers. Based upon in-depth fieldwork, the book explores the reality behind the statistics, balance sheets, and managerial prescriptions that are the focus of most studies of international mergers and acquisitions.



### Russia to upgrade Admiral Gorshkov for India on time

SOCHI, May 4 (RIA Novosti) - Russia will keep to the time period specified in the contract for the retrofit of the Admiral Gorshkov aircraft carrier for the Indian Navy, the head of Russia's united shipbuilding corporation said on Tuesday. "We are catching up with the retrofit of the Admiral Gorshkov," Roman Trotsenko said. "We will fulfill the obligations Russia has undertaken." The two countries have signed a deal on upgrading the Admiral Gorshkov aircraft carrier, following an earlier statement from the Indian government's security committee that it would allocate \$2.3 billion to retrofit the ship. The initial refit agreement of \$750 million went up by an additional \$1.5 billion. In line with the contract, the aircraft carrier will be handed over to India by 2012. The Admiral Gorshkov is a modified Kiev-class aircraft carrier, originally named Baku. The ship was laid down in 1978 at the Nikolayev South shipyard in Ukraine, launched in 1982, and commissioned with the Soviet Navy in 1987. It was renamed after the collapse of the Soviet Union in 1991. In 1994, following a boiler room explosion, the Admiral Gorshkov sat in dock for a year for repairs. In 1995, it briefly returned to service and in 1996 was finally withdrawn and put up for sale. The ship has a displacement capacity of 45,000 tons. It has a maximum speed of 32 knots and an endurance of 13,500 nautical miles (25,000 km) at a cruising speed of 18 knots.

**Source:** Ria Novosti

### United, Continental forge world's biggest airline

United and Continental on Monday sealed a three-billion-dollar merger to become the world's biggest airline, in a deal forged to help them navigate strong economic headwinds.

The deal would fuse United's strong Asian presence with Continental's extensive links to Europe and Latin America, a tectonic shift in an industry battling to survive recession.

Airlines around the world are struggling with fallout from the worst recession in a generation, terrorism and costs brought on by an Icelandic volcano which forced the suspension of thousands of flights.

The new airline will fly under the United Airlines name and will hold around seven percent of global airline capacity. It has a market value of around 6.75 billion dollars.

Jeff Smisek, the Continental chief executive who moves to the same position in the new company, said the merger would create "a stronger, more efficient airline, both operationally and financially, better positioned to succeed in a highly competitive global aviation industry."

The companies said they hoped to generate annual savings and new revenues of up to 1.2 billion dollars by 2013.

The deal needs approval from shareholders of the two carriers and US anti-trust authorities, who turned down a United-US Airways deal in 2001.

But Smisek told reporters: "We are confident. There are no material anti-trust concerns. We are increasing competition, we are not reducing competition, with more consumer choice, better consumer choice."

The economic crisis and the rise of low-cost carriers has driven airline alliances and steep cost cutting.

The deal is the latest step to consolidate the US airline sector after Delta's 2008 takeover of Northwest.

British Airways is tying up with Spanish carrier Iberia to avoid being sidelined by European rivals Air France-KLM and Lufthansa.

United and Continental both had a turnover of more than three billion dollars in 2009 but both reported losses.

"Together, we will have the financial strength necessary to make critical investments to continue to improve our products and services and to achieve and sustain profitability," Smisek argued.

Glenn Tilton, president and chief executive of United parent UAL Corporation, will serve as non-executive chairman of the new United Continental Holdings Inc board until the end of 2012.

He called the deal "a merger of equals to create a world-class and truly global airline with an unparalleled network."

A statement announcing the merger said the boards of both airlines had unanimously approved the deal.

Under the accord, Continental shareholders will receive 1.05 shares of United stock for each Continental share. United shareholders would own approximately 55 percent of the equity in the new company and Continental shareholders 45 percent.

The companies said they expected to complete the transaction by the end of 2010.

The merged giant will maintain United's base in Chicago as its headquarters, while Continental's home city of Houston, Texas will be the number one air hub, the statement said.

Texas Governor Rick Perry clearly thought the headquarters should have been in Houston.

"While we disagree with the decision to locate the headquarters in Chicago, we are encouraged by the company's commitment to Texas and its stated intent to create more jobs for Texans in the future," he said in a statement.

No announcement of job cuts was made, although pilots' unions for both carriers demanded job security and pension guarantees.

United pilots said they would take a "wait-and-see" approach, but believe the format is in place for such a combination to work.

The companies said the new airline will serve more than 144 million passengers per year with 370 destinations in 59 countries.

The combined company promised to offer enhanced service to Asia, Europe, Latin America, Africa and the Middle East from its 10 US hubs.

They said there were no international route overlaps and only "minimal" domestic copying.

US Airways broke off merger talks with United last month, but said it expected consolidation of the fragmented airline sector in the near future.

"It remains our belief that consolidation makes sense in an industry as fragmented as ours," said US Airways chairman Doug Parker.

Few market watchers expected mergers to end with the one announced Monday, and rumors are swirling about a possible American Airlines tie-up with US Airways.

**Source:** 2009 AFP, Agence France-Presse (AFP)

### **Lockheed Martin Wins \$28 Million FAA Contract to Upgrade Logistics Software System**

MOUNTAIN VIEW, Calif., May 4 /PRNewswire/ -- The U.S. Federal Aviation Administration (FAA) has awarded Lockheed Martin (NYSE: LMT) a five-year, \$28-million contract to design and integrate a supply chain software platform that supports operations to maintain, repair and track equipment used throughout the nation's National Airspace System (NAS).

Called the Logistics Center Support System (LCSS), the Commercial Off-the-Shelf (COTS) solution will optimize the visibility, maintenance, inventory and delivery of more than 100,000 pieces of equipment such as radar systems, lighting and communications relay stations used by the NAS throughout its 41,000 facilities. The Lockheed Martin team includes ABeam Consulting, IFS, Principal Technologies and Xyant Technology.

"We're honored to provide an advanced solution to the FAA that helps to maintain the reliability of critical parts and equipment in our nation's airspace system," said Jim Trettel, director of Lockheed Martin's Unified Logistics Solutions. "At the same time, the Logistics Center Support System is designed to streamline, modernize and improve the efficiency of the FAA's maintenance, repair, and overhaul operations."

LCSS is a sophisticated, enterprise-wide logistics information suite that integrates data from 14 legacy systems to optimize asset management, demand planning, resource scheduling, supply network, inventory control and processes. The Lockheed Martin team will provide

business process reengineering (BPR), software configuration and test, and comprehensive training and change management services.

The LCSS solution replaces the FAA's existing Logistics and Inventory System in use at the Federal Aviation Administration Logistics Center (FAALC), a distribution, warehousing and repair facility based at the Mike Monroney Aeronautical Center in Oklahoma City. The Logistics Center serves a number of field locations and supports supply requirements for the nation's 19,000 airports, 600 air traffic control facilities and 5,800 technicians that operate and maintain services.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation reported 2009 sales of \$45.2 billion.

**Source:** PRNewswire, Lockheed Martin

### **Boeing Announces Formation of Airlift and Tankers Division**

ST. LOUIS, May 4, 2010 -- Boeing [NYSE: BA] today announced the formation of the Airlift and Tankers (A&T) division within its military aircraft business unit. The new division will lead the company's sustained pursuit and execution of U.S. and international tanker and fixed-wing mobility aircraft business.

The A&T division will assume program management responsibility for the C-17 Globemaster III and international and U.S. tanker programs.

Chris Chadwick, president of Boeing Military Aircraft, said that the organizational change would allow the business to "increase productivity to enhance Boeing's competitive position and offer the best available capability, price and risk value proposition for its customers."

"Aligning large, fixed-wing aircraft capabilities under one leadership team will intensify our focus on the warfighter's needs and introduce efficiencies that will result in cost savings for taxpayers," Chadwick added.

Boeing has named Jean Chamberlin as vice president and general manager, Airlift and Tankers, reporting to Chadwick. Chamberlin will be responsible for providing direction and oversight for airlift and tanker programs from advance program development through customer delivery. She will continue to lead Boeing's effort to capture the U.S. Air Force KC-X program, also serving as program manager, USAF Tanker Program.

Rick Heerdt has been named vice president of the C-17 Program -- which will continue to be based in Long Beach, Calif. -- and will report to Chamberlin. Heerdt will be responsible for working with U.S. and international customers to capture new orders, as well as developing and producing cost-effective future airlifter capability.

A unit of The Boeing Company, Boeing Defense, Space & Security is one of the world's largest defense, space and security businesses specializing in innovative and capabilities-driven customer solutions, and the world's largest and most versatile manufacturer of



military aircraft. Headquartered in St. Louis, Boeing Defense, Space & Security is a \$34 billion business with 68,000 employees worldwide.

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**Source:** Epicos, Boeing

#### Airbus A380 orders hit headwind

European aircraft maker Airbus must wait until late 2011 or 2012 before getting significant orders for its giant A380 airliner, the head of its parent company EADS said Tuesday in a German daily. "Airlines must get through the crisis first. For that reason, I do not expect many orders in 2010," EADS chief executive Louis Gallois told the newspaper Bild.

"They will probably only become significant towards the end of 2011 or early 2012," the head of the European defence group said.

Gallois added however that he was "absolutely convinced" the A380 would eventually be successful. In January, before the Icelandic volcano eruption grounded European air traffic for more than five days, Airbus had said it aimed to double the number of A380 deliveries this year to 20.

But the airline federation IATA has estimated since that the exceptional event will cost airlines more than one billion euros (1.3 billion dollars).

**Source:** 2009 AFP, Agence France-Presse (AFP)