

# ISRAEL HIGH-TECH & INVESTMENT REPORT

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## Israeli Awarded Nobel Prize



Prof. Ada Yonath of the Weizmann Institute of Science, has been awarded the 2009 Nobel Prize in Chemistry. Prof. Yonath's research is driven by curiosity and ambition to better understand the world and our place within it.

This research aims high: to understand one of the most complicated "machines" of the biological system. In the late 1970s, Prof. Yonath decided to take on the challenge of answering one of the key questions concerning the activities of live cells: to decipher the structure and mechanism of action of ribosomes – the cell's protein factories. This was the beginning of a long scientific journey that has lasted decades, and which required courage and devotion from the start. The journey began in a modest laboratory with a modest budget, and with the years, increased to tens of researchers under the guidance of Prof. Yonath. This basic research, which began in the attempt to understand one of the principles of nature, eventually led to the understanding of how a number of antibiotics function, something that is likely to aid in the development of more advanced and effective antibiotics. This discovery will hopefully also help in the struggle against antibiotic-resistant bacteria, a problem recognized as one of the most central medical challenges of the 21st century.

"People called me a dreamer," says Prof. Ada Yon-

ath recalling her decision to undertake research on ribosomes – the cell's protein factories. Solving the ribosome's structure would give scientists unprecedented insight into how the genetic code is translated into proteins. By the late 1970s, how-

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ever, top scientific teams around the world had already tried and failed to get these complex structures of protein and RNA to take on a crystalline form that could be studied. Dreamer or not, it was hard work that brought results: Yonath and colleagues made a staggering 25,000 attempts before they succeeded in creating the first ribosome crystals, in 1980.

And their work was just beginning.

Over the next 20 years, Yonath and her colleagues would continue to improve their technique. In 2000, teams at Weizmann and the Max Planck Institute in Hamburg, Germany – both headed by Yonath – solved, for the first time, the complete spatial structure of both subunits of a bacterial ribosome. Science magazine counted this achievement among the ten most important scientific developments of that year. The next year, Yonath's teams revealed exactly how certain antibiotics are able to eliminate pathogenic bacteria by binding to their ribosomes, preventing them from producing crucial proteins. Yonath's studies, which have stimulated intensive research worldwide, have now gone beyond the basic structure. She has revealed in detail how the genetic information is decoded, how the ribosome's inherent flexibility contributes to antibiotic selectivity and the secrets of cross-resistance to various antibiotic families. Her findings are crucial for developing advanced antibiotics. Prof. Ada Yonath's research is supported by the Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly. Prof. Yonath is the Martin S. and Helen Kimmel Professor of Structural Biology.

Ada Yonath was born in Jerusalem to an impoverished Jewish family. Her parents had little opportunity for education themselves, but were supportive of their daughter receiving a good academic education. Her family moved to Tel Aviv after the death of her father.

Ada Yonath graduated with a bachelor's degree in Chemistry (1962) and a master's degree in Biochemistry (1964) from the Hebrew University of Jerusalem and earned a Ph.D. in X-Ray Crystallography at the Weizmann Institute of Science

(1968). She has also accepted postdoctoral positions at the Carnegie Mellon University (1969) and MIT (1970).

In 1970 she established what was for nearly a decade the only protein crystallography laboratory in Israel. After returning from a sabbatical year at the University of Chicago, she headed a Max-Planck Institute Research Unit in Hamburg, Germany (1986 - 2004) in parallel to her research activities at the Weizmann Institute.

### Siemens clinches Solel Solar for \$418m.

The Beit Shemesh-based solarthermal energy systems manufacturer, had \$90 million revenue in the first half of 2009.

German giant Siemens AG (NYSE: SI; XETRA: SIE) concluded the deal to acquire Solel Solar Systems Ltd., paying \$418 million for the Beit Shemesh-based solarthermal energy systems manufacturer. The sellers are London-based investment company Ecofin Ltd. and another shareholder, whose name was not disclosed. Siemens expects to close the deal before the end of the year.

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Solel Solar has about 500 employees, including 400 in Israel, and had \$90 million revenue

in the first half of 2009. It is one of the world's two leading suppliers of solar receivers, - key components of parabolic trough power plants. Siemens said that it will keep Solel Solar's facilities open.

Solel Solar CEO Avi Brenmiller said, "Together, we will utilize our know-how in these core competencies to further optimize the water/steam cycle and to further boost the efficiency of solar thermal power plants. Thus we can accelerate the use of this clean technology. Combined with Siemens' financial strength and its global sales and marketing activities, this will open up promising prospects for our business and hence also for all of Solel's employees."



Solel has also been active in Spain since 2006, supplying key components for 15 solar thermal power plants with a combined capacity of 750 megawatts. The company is also active in the US. Its

spokeswoman noted that the company has been seeking a buyer for the past months in order to gain more exposure to the international market and more capital for new initiatives.

Siemens president and CEO Peter Loscher said, "After the rapid and highly successful expansion of our wind power business, we now want to continue this success story in the solar sector. With the acquisition of Solel, Siemens can now strengthen its market position in the promising business of solar thermal power plants. We can thus further expand our extensive Environmental Portfolio, and, as already announced, we will become even greener."

Siemens Renewable Energy Division CEO Rene Umlauf added, "Siemens and Solel are a perfect match. We are the market leader in steam turbines for solar thermal power plants and, with

the power block, we can offer a key part for solar power plants - the part that is responsible for power generation. Solel boasts high-efficiency receiver technology and comprehensive expertise in the engineering and construction of solar fields. In the future, we'll be able to offer the key components for the construction of parabolic trough power plants from a single source and to further enhance the efficiency of these plants."

The companies say that the market for solar thermal power plants will show annual double-digit growth through 2020 to over €20 billion. Primary focal growth regions will be the US, South Africa, Australia, Spain, India, North Africa and the Middle East.

### Israel's Defense exports over \$6b

The Defense Ministry figure for 2008 is much higher than a US Congress estimate.

Israel is the world's third largest defense exporter, after the US and Russia. Israeli defense companies signed \$6.3 billion worth of new export contracts for weapons, munitions, technologies, and equipment during 2008, and \$20.3 billion in 2005-08, according to the Ministry of Defense, disclosed by "Defense News" in this week's edition.

The Ministry of Defense figures are rather different from figures cited in a report by the US Congressional Research Service, a unit of the Library of Congress, which provides information, analyses, and other services to representatives and senators. A Congressional Research Service study says that Israel was the world's eighth largest exporter in 2008 and the ninth largest in 2005-08.

The Congressional Research Service says that Israeli companies signed new contracts worth \$500 million in 2008, less than a tenth of the Ministry of Defense figure. It adds that Israeli companies signed new contracts worth \$5.3 billion in 2005-08, a quarter of the Ministry of Defense figure.

The Ministry of Defense published the export figures simultaneously with the Association of the

United States Army (AUSA) 2009 Annual Meeting and Exposition this week in Washington DC. Hundreds of defense companies from around the world are participating, including leading Israeli firms Israel Aerospace Industries Ltd. (IAI) (TASE: ARSP.B1), Israel Military Industries Ltd. (IMI), Rafael Advanced Defense Systems Ltd., and Elbit Systems Ltd. (Nasdaq: ESLT; TASE: ESLT), as well as numerous smaller companies.

Ministry of Defense officials and defense companies' executives cannot explain the difference between the ministry's export figures and those of the Congressional Research Service study. "Defense News" quotes a SIBAT Ministry of Defense Foreign Defense Assistance and Defense Export Organization official as saying that the ministry's accounting procedures were strict and consistent, and that no contract was recorded unless it was signed and a down payment made.

Congressional Research Service analyst Richard Grimmet also found it difficult to explain the difference to "Defense News". He said that one possible reason was that the US military sources that provided his data focused only on sales of large platforms (such as ships, planes, and tanks), and did not include transactions for R&D, subsystems, training services, upgrades, and technical support.

He said that countries such as Israel, which except for a few cases do not manufacture large platforms. The methodologies used by the US administration could therefore result in large differences.

The Ministry of Defense states that the US was the largest customer for Israeli defense companies for the second consecutive year, with contracts worth \$1.5 billion. The largest exporters to the US were Elbit Systems and its joint venture with Rockwell Collins Inc. (NYSE: COL), Vision Systems International LLC (VSI), signing \$907 million in new contracts with the US in 2008.

IAI is another major exporter to the US, with \$1

billion in contracts with US and Canadian customers. This figure includes civilian sales, such as executive jets. Rafael has only a small share of Israeli exports to the US, with \$160 million in signed contracts, out of a total of \$1.4 billion in total contracts signed in 2008.

Israeli defense exports to Asia, including India, totaled \$1.5 billion in 2008, the same as to the US. The figure includes Rafael's \$250 million contract with India for the Spyder low-level, quick-reaction surface-to-air missile system.

### **Israeli scientists get electricity from cars on roads**

Innowattech: Regular vehicle traffic can generate 2,000 watts per hour.

Israeli scientists have achieved a breakthrough in alternative energy, by generating electricity from road traffic. The technology was developed by Ra'anana-based start up Innowattech Ltd., and Israel National Roads Company Ltd. and the Technion Israel Institute of Technology participated in the trial.

Innowattech says that it presents a pioneering invention for "Parasitic Energy harvesting".

The trial proved, for the first time in the world, how Israeli technology can generate electricity from generators installed beneath a road's asphalt layer. The trial was conducted along a ten-meter stretch of Road #4 at the Hefer Junction, north of Hadera. Following the success of the test, it will be expanded to several one-kilometer stretches of the road, one of Israel's main north-south traffic arteries.

Israel National Roads CEO Alex Viznitzer said, "The success of the trial this week is an important milestone in the breakthrough of this technology. We live in a small country with a significant advantage in research and know-how, compared with many countries in the world that are seeking ways to conserve energy that is being wasted."

Innowattech senior technologist and project

manager Dr. Lucy Edery-Azulay said that the generators developed by the company are placed at a depth of five centimeters beneath the upper asphalt layer of a road. "The technology is based on piezoelectric materials, which convert mechanical energy generated from a vehicle's weight into electricity. Drivers feel no change in the road. Regular vehicle traffic can generate 2,000 watts per hour. The electricity is accumulated in batteries placed along the side of the road."

### **Teva in "BusinessWeek's" 40 best global companies list**

Teva Pharmaceutical Industries Ltd. (Nasdaq: TEVA; TASE: TEVA) has made 20th place in the "BusinessWeek" World's Best Companies/Global Top 40 list, compiled by management consulting firm A.T. Kearney.

According to A.T. Kearney, Teva achieved an average annual growth of 8.6% and average sales growth of 20.38% in 2004-08. Its market cap was \$36.44 billion at the end of 2008, and it had \$10.46 billion in sales.

### **Israel's Ben Gurion Airport plans 50-Kilowatt solar project**

As the first Middle Eastern country to arrange to power its airport via the sun, not to mention one of the first in the world, Israel's forward-thinking commitment to clean energy technology will reap financial rewards. According to an article on Israel21c.org, airport executives predict a \$100,000 return on this investment when the excess of clean, solar energy is sold back to the national grid via Israel's Electric Company. Additionally, this project will further Israel's national goal to derive 20% of its energy from renewable sources by 2020.

Israel, who has long demonstrated a commitment to clean energy technology in general, is ideally situated to take advantage of solar power and is anxious to get this particular project underway. Slated to begin construction in 2010, the project will recover 5,382 square feet, largely atop the airport's long-term parking lots, in order to erect

the solar display.

If the solar initiative is a success at Ben Gurion, it is possible that Israel will support additional solar projects in Israel's other, smaller airports. Eilat, a popular tourist destination that experiences sweltering heat almost every day of the year, is home to the next logical solar-powered airport site, if all goes well in Tel Aviv.

Between the sun-powered venue, the recent renovations and the free wireless internet, not to mention its other eco-friendly amenities, Ben Gurion airport is shaping up to be a miniature "holy land" for clean energy advocates and everyday travelers.

### **CopperGate sold for \$200 million, to Sigma**

Nine years after its establishment, and following negotiations with a number of potential buyers, the Israeli startup CopperGate Communications has been sold - and this time it's final. The acquisition by Sigma Technologies, with the jaw-dropping price of \$200 million, was formally announced. That's a pretty profit for the company's investors, who stand to chalk up a profit eight times their original investment.

CopperGate has raised only \$25 million from investors to date. The company reportedly considered floating its shares in the past, based on a valuation of \$500 million. Boasting sales in the millions of dollars a year since 2006, CopperGate has received - and turned down - quite a few suitors, most recently the dual-listed company Mellanox Technologies.

CopperGate has chosen Sigma, mainly based on its synergy with the Israeli company. CopperGate develops chipsets for multimedia home networking using existing wiring, while Sigma Designs is a developer of complimentary technology - System-on-a-Chip (SoC) semiconductors for multimedia processing. The plan is to combine the capabilities of the two semiconductors into a unified chip that can provide Internet communications with video processing abilities, like those in cable tele-

vision converters and video players.

The two companies have worked together over the years: about 8 million converters incorporate CopperGate and Sigma chips.

"I believe CopperGate will be the engine for the world's digital media in five or six years, with hundreds of thousands of converters using its chips," he said.

Sigma controls 80% of the multimedia chip market, and CopperGate is a leader in communications.

"The two technologies will now be combined into a single brain, resulting in a dramatically lower price, better efficiency and power use, and smaller chips," he said. "The match is natural."

CopperGate CEO Gabi Hilevitz explained the winning synergy between the two companies: Sigma chips process video signals, handle security issues and high-definition visual performance, while CopperGate technology enables communication, and creates a household network based on Internet protocol that supports cable television and copper wire (telephone wire) communication systems. The company also plans to launch a chip that will allow communication via home electrical wiring, Hilevitz added.

CopperGate reported sales of \$60 million in 2008, and already has sold \$70 million in 2009 - in the midst of an economic crisis. The company has reported a profit for three consecutive years now.

"When you generate that much cash you have to consider the direction of future development," Hilevitz said. "We saw content is going digital, and we saw a demand for multimedia processors, and for transferring (the content) on home networks." "There was no point in putting the firm under the kind of pressure involved in being a publicly traded company. Moreover, we had other avenues for raising money other than the public - for instance, investors who were willing to loan us money and

invest in CopperGate."

And so, after mulling a variety of options, including raising money from financial investors or buying complimentary technology, at the end of the day, the company opted on the merger.

Hilevitz rejects the idea that high-tech companies can't become large in Israel, and are doomed to be gobbled up by foreign investors while they are still relatively small.

CopperGate, he promised, is an Israeli company that will continue grow and be part of the local landscape.

"The company won't be swallowed up like a drop in the sea by Broadcom or Intel, regardless of what it is called after the merger. We hope that its sales will double, that it will hire hundreds more employees, and bring pride and jobs to the country."

### **Mentor Graphics Buys Israeli firm**

Wilsonville, Oregon-based Mentor Graphics, a developer of electronic design automation software, said late Monday evening that it has signed a definitive merger agreement with Valor Computerized Systems, Ltd. The firm said the transaction, worth \$82M, will make Valor a wholly-owned subsidiary of Mentor Graphics. Valor is a Israeli maker of printed circuit board (PCB) design software, including software used for physical layout, fabrication, and assembly of PCBs.

### **Wertheimer to build Jewish-Arab industrial park in Nazareth**

This will be Stef Wertheimer's sixth industrial park in Israel.

Industrialist Stef Wertheimer today said that he will build Israel's first joint Jewish-Arab industrial park in Nazareth. He made the announcement at the opening session of the Galilee Conference in Kfar Blum.

Wertheimer will build the industrial park together with Nazareth Mayor Ramez Jaraisy. Investment in the 14-dunam (3.5-acre) industrial park, which will have 18,394 square meters of built-up space, will total \$20 million. The industrial park is targeting entrepreneurs from Nazareth and the Galilee.

This will be Wertheimer's sixth industrial park in Israel. He has four parks in the Galilee - Lavon, Tel Hai, and Tefen, the headquarters of Iscar Ltd. - and one in the Negev at Omer.

Wertheimer added that in addition to the technology school opened at Lavon, together with the IDF, he will open a technology school at the Israel Navy Base in Haifa for discharged soldiers to obtain skills for jobs in the Galilee.

At the conference, Wertheimer met with Melanox Technologies Ltd. (Nasdaq:MLNX; TASE:MLNX) chairman and CEO Eyal Waldman, who announced that the company would open a new branch at the Tel Hai industrial zone instead of in another country.

### **US and Israeli firms team up to develop "fuel from sewage" technology saraho@netvision.net.il**

US biofuel firm Qteros has signed an agreement with Israel's Applied CleanTech to develop a way of producing biofuels from sewage.

The companies have said they are the first to demonstrate a commercially viable technology for creating ethanol from the cellulose in municipal and agricultural liquid waste; in other words, sewage and slurry.

Jeff Hausthor, Qteros co-founder and senior project manager, said the technology has the potential to slash costs for sewage plants by providing them with a significant additional revenue stream from selling energy.

"It will provide a value-added product for municipal wastewater plants, thereby making treatment plants much less expensive to run and helping

local governments throughout the world with their constrained budgets," he explained.

Applied CleanTech has spent six years developing its integrated sewage recycling solution, which produces a material known as Recyllose. Under the partnership agreement, Qteros plans to process the Recyllose in an ethanol production plant to produce between 120 and 135 gallons of ethanol per tonne of Recyllose.

ACT president Dr Refael Aharon said that a wastewater plant serving a population of about two million people will handle around 150 million gallons of waste a day, providing enough cellulose to supply a small-scale ethanol plant.

The research has been supported in part by a grant from the Binational Industrial Research and Development (BIRD) Foundation.

The US government has set a goal of increasing annual production of alternative fuels such as ethanol from today's 10 billion gallons to 36 billion gallons by 2022. Second-generation biofuels made from waste and other cellulosic materials are widely regarded as essential to meeting the target, as conventional biofuels made from corn have been widely blamed for driving up food prices and contributing to global food shortages.

### **Light may help bacteria invade produce**

Israeli scientists say they've discovered light exposure and possibly photosynthesis might be helping bacteria to become internalized by lettuce leaves.

Researchers from Tel Aviv University and Israel's Agricultural Research Organization said such internalization would make disease-causing bacteria impervious to washing.

In the study, researchers examined the role light and photosynthesis might play on the ability of salmonella bacteria to infiltrate lettuce leaves via stomata -- small pores through which gases and water vapor can pass.

Sterile iceberg lettuce leaves were exposed to bacteria either in the light, in the dark or in the dark after 30 minutes of exposure to light. The scientists said they found incubation in the light or pre-exposure to light resulted in aggregation of bacteria around open stomata and invasion into the inner leaf tissue. In contrast, incubation in the dark resulted in a scattered attachment pattern and very little internalization.

“The elucidation of the mechanism by which salmonella invades intact leaves has important implications for both pre- and post-harvest handling of lettuce and probably other leafy vegetables,” the scientists said. “The capacity to inhibit internalization should limit bacterial colonization ... and consequently might enhance the effectiveness of surface sanitizers.”

The study is reported in the October issue of the journal Applied and Environmental Microbiology.

**Anti-Terrorist ‘Beast of Burden’: Israel unveils new Robot**



Israel Aircraft Industries (IAI) unveiled a new “robotic platform” at the Seoul International Aerospace and Defense Exhibition this week and is expecting hundreds

of millions of dollars in orders for the anti-terror machine.

REX acts as a “beast of burden” through its ability to carry up to 200 kilograms (440 pounds) and is designed to assist groups of 3-10 ground soldiers on operational and logistical missions for up to 72 hours.

“The robotic vehicle follows the lead soldier from a given distance,” explained Ofer Glazer, head of innovation at IAI. “Using simple commands, including ‘stop’, ‘fetch’, and ‘heel’, the lead soldier

controls the robot without being distracted from the mission at hand. Controlling the robot in this way allows for intuitive interaction and rapid integration of the product on the field within a short time frame.”

IAI also has produced other robots, including the Guardium robotic patrol vehicle and the semi-robotic aircraft towing system, called Taxibot.

A government-owned company and the largest aerospace and defense industry power in Israel, Israel Aerospace Industries was established in 1953 as Bedek Aviation Company. The company has become a world leader in aircraft conversion and modernization programs, unmanned air vehicles (UAVs), communication programs and defense electronics

**Deutsche Telekom doubling R&D investment in Israel**

Deutsche Telekom will be doubling its investment on research in Israel, company CEO Ren? Obermann told TheMarker. The lion’s portion of that investment will apparently go to the German giant’s research lab at Ben-Gurion University of the Negev, which has been operational for three years.

Obermann, who has served as CEO since 2006, is visiting Israel to participate in the European-Israeli Business Dialog forum held recently.

To date, the German telecommunications giant has invested more than \$20 million in Israel, say industry observers. Of that, at least \$16 million went to the university laboratory over the last three years. Since the company is highly pleased with the outcome of its investments, Obermann said, it means to double that amount over the next three years.

The lab is likely to be only one recipient of Deutsche Telekom’s largesse. While the company definitely means to expand its R&D center at Ben-Gurion University, Obermann said, as it doubles its budget for R&D in Israel, it has other fish to

fry as well. “We have three investments in young companies developing technology. We are very pleased with the projects coming [out of Israel] and are trying to take advantage of innovations in the areas of network security and IPTV - Internet protocol for television.”

The Ben-Gurion center was Deutsche Telekom’s first outside Germany. Starting with funding of \$16 million for three years, it works closely with the company’s hub in Berlin. While engaged in a number of areas, one of its chief focuses is a crucial issue in today’s online world: information security.

The German company means to increase the number of R&D people working at the Ben-Gurion center, said Deutsche Telekom people who met with Benjamin Ben-Eliezer, minister of industry and trade, last week. While the Deutsche Telekom R&D center in Germany has 200 employees, the company aims for the Israeli one to have 150. They also mean to move the center from its present location to a high-tech park slated for the Be’er Sheva area.

“Unlike others who ask what Israel can give them, I ask what we can do to take better advantage of Israel’s innovative and technological potential,” said Obermann. “How we can take advantage faster of technological innovations, for mutual profit.” The company would be interested in “contributing more” to startups in Israel, he added: “We are very pleased with the level of innovation here.”

In recent years Deutsche Telekom has been getting into cellular and media technologies, expanding in part through acquisitions. Its acquisition strategy in Israel is not affected by the security situation or political developments, Obermann said.

Yet at this stage Deutsche Telekom isn’t considering any new strategic investments in Israel, the CEO clarified: It’s busy digesting companies it bought in America and Europe, where the

investment opportunities were more attractive than here. But it has collaborative relations with two leading Israeli-American companies: Amdocs, which makes billing and customer-care systems for phone companies, and Comverse, which focuses on voicemail technology.

### **Venture capital in the doldrums**

the third quarter, compared to 38 percent and 28 percent in Q2/09 and Q3/08 respectively. The average First investment by Israeli VCs was \$1.2 million, while the average Follow-on investment was \$0.9 million.

“While investments in start-ups present a gloomy picture, the future is expected to be even worse,” said Zeev Holtzman, Chairman of IVC. “We’re in the midst of the VC industry’s toughest crisis since 2000,” explained Holtzman. “There is a major shortage of capital for new investments by Israeli VCs, and as foreign VC funds fail to find Israeli co-investors, they will further reduce their exposure to Israel. The result is that the high-tech sector – the growth engine for Israel’s economy – will experience a major setback from which it will not be able to recover. It is clear that the future for start-ups, VCs and the entire high-tech industry is at risk.”

### **Capital Raised by Sector**

The Life Sciences sector led capital raising in Q3 2009 with \$83.5 million or 27 percent of capital raised, followed by the Software sector with \$64 million or 21 percent.

In the first three quarters of 2009, Life Science companies attracted \$210 million or 25 percent of total capital raised, which compares with \$253 million or 15 percent in the first three quarters of 2008.

### **Capital Raised by Stage**

Sixteen Seed companies attracted \$14 million, 5 percent of the total amount raised in Q3, compared to \$25 million raised by 24 companies in the previous quarter, and \$16 million raised by 15 companies in Q3 2008. During the first three

quarters of the year, Seed companies attracted \$52 million, 6 percent of the total funds, compared to \$73 million or 4 percent in Q1-Q3 2008.

Israel-UK joint research receives £365,000 in grants

Grants totaling £365,000 were awarded to 15 projects under the Britain-Israel Research and Academic Exchange Partnership, it was announced in London on Saturday.

The partnership is managed by the British Council.

Jim Buttery, director of British Council in Israel, said that educational programs in Israel still had the support of the British government, despite calls in the UK for an educational boycott of the Jewish state.

The 15 projects with topics such as galaxy clusters and motor neuron degeneration received grants for research teams from top universities in the UK and Israel to carry out joint scientific research.

Buttery said that he looks forward to increased government help in the future.

“The government is very supportive,” he said. “It would be unfair to judge their support and commitment to this based on the money that is being contributed.”

The program is meant to strengthen academic cooperation between the two countries, Buttery said.

The grants were awarded following international peer reviews and on the basis of recommendations from a specialist Academic Selection Board, which is made up of distinguished academics from the UK and Israel.

The institutions involved include Israel’s Bar-Ilan, Ben-Gurion and Tel Aviv universities and the

Weizmann Institute of Science, partnering with academics from UK universities including Oxford and Cambridge, Imperial College and University College London, Anglia Ruskin University and the Universities of Cardiff, Swansea, Aston, Manchester, Leeds, Liverpool, Newcastle and Southampton.

The Britain-Israel Research and Academic Exchange Partnership is funded by a mix of private and public monies from the UK and Israel. Its largest supporter is the Pears Foundation from the UK.

“We wanted to see what we could do by the way of a longer-term response to our educational agenda in Israel and we found some excellent partners,” Buttery said.

The program is also supported by United Jewish Israel Appeal and has the full backing of the British and Israeli governments, which provide financial support through the Department for Business Innovation and Skills and the Foreign & Commonwealth Office in the UK, and the Science and Technology Ministry in Israel. The partnership is managed by the British Council from its offices in Israel.

“The Pears Foundation really led the way in terms of wanting to get behind this kind of scheme,” Buttery said. “The rest is history. Once they came on board, a number of organizations joined into the scheme and we have greatly grown.”

Over five years, the partnership has a commitment of £550,000 from the Pears Foundation, and £200,000 from the United Jewish Israel Appeal. The two governments have contributed £20,000 each as seed money for the first year to pay for start-up costs.

British Prime Minister Gordon Brown said in a statement that he “very much” welcomes the announcement of the grants.

“The variety and diversity of these successful bids reflect the strong nature of the UK-Israel bilateral

relationship,” Brown said. “It was an honor for me to launch the scheme in July 2008, together with the Israeli prime minister, and my government continues to support and actively encourage academic links between the UK and Israel.”

### IAI in UAV deal with Germany



Rheinmetall Defence will provide in-theater logistical and maintenance services for the Herons, while German troops will operate them in northern Afghanistan.

A joint venture of Israel Aerospace Industries Ltd. (IAI) (TASE: ARSP.B1) and Rheinmetall Defence AG have signed a contract with the German Federal Office of Defense Technology and Procurement to provide IAI Heron unmanned aerial vehicles (UAV) and ground stations to the Bundeswehr (German military) for intelligence, surveillance and reconnaissance missions.

IAI declined to state the value of the deal, but defense industry sources estimate the deal at \$70-90 million, and believe that follow-on orders are likely. Rheinmetall said that under the current multimillion-euro contract, the Bundeswehr will lease the UAV system for one year with an option for a two year-extension.

Rheinmetall-IAI has been operating in Germany since the 1980s. Rheinmetall Defence will provide in-theater logistical and maintenance services for the Herons, while German troops will operate them in northern Afghanistan. Flight operations will begin by mid-March 2010.

The Heron can carry a wide variety of sensors and information systems for gathering data for intelligence analysis to protect the friendly forces during operations.

IAI president and CEO Itzhak Nissan said, “IAI beat Israeli and foreign competitors to win this tender. Our fruitful cooperation with Rheinmetall

allows for the integration of the two companies’ capabilities to the benefit of both of our customers, and presents new marketing opportunities of UAVs and other airborne systems.”

The Canadian, Australian and French armies already use the Heron as one of their main ISR sources in Afghanistan.

IAI said that its Searcher UAV is used by Spanish troops in Afghanistan.

### Fixing leaky pipes

The London Economist has published an article about a new system could save water by sealing small but pervasive leaks

Water is precious, yet much is wasted. The World Bank estimates that 88 billion litres of treated water is lost from leaking urban pipelines every day, a quantity split evenly between rich and poor countries. Now an Israeli company called Curapipe has developed a system that aims to seal leaks cheaply with only a small disruption to the water supply.

Much of the wasted water is lost through what the International Water Association, an industry body, calls “background leakage”—that is, small but widespread cracks that drip water continuously. Indeed, background leakage is so pervasive that water suppliers accept 3,500 litres of water per kilometre of pipe per day as the minimum achievable loss. Short of replacing the entire water main, which is both expensive and disruptive, the only way to cut background leakage below these levels has been to reduce the water pressure.

Curapipe’s system piggybacks, as it were, on the system of “pigs” commonly used to clean urban water mains. This cleaning regime works by suspending the supply for a couple of hours while a bullet-shaped, spongy object allegedly resembling a pig is inserted into the pipe and then forced through it using water pressure, taking

mineral scale and sediment with it.

The device developed by Curapipe consists of a train of two pigs with a viscous composite trapped between them. This composite acts as the sealant. The train is forced through the system in the usual way. When it reaches a crack, the sealant is sucked out of the train and into the crack in the same way that water is lost. The composite fills the crack and then hardens in situ. Once the pipe has been flushed, the water supply can be restored.

### 12 incubator programs get NIS 20.5m

The Technology Incubators Committee, chaired by Chief Scientist Dr. Eli Opper, has approved NIS 20.5 million in grants for 12 new programs. Four programs are in biotechnology and pharmaceuticals, four are for medical devices, and four are software and telecommunications.

Among the projects approved are a combination of drugs to cure open wounds and develop antibodies to prevent and cure infectious diseases at New Generation Technology (NGT) in Nazareth; a system to delivery medicines under development at Yozmot Granot Initiative Center; a project to develop insulin-producing tissue to treat diabetes, and a system for monitoring amniotic fluid in pregnant women at Van Leer Ventures Jerusalem Ltd.

### Best Israeli high-tech employer named

Business Data Israel Coface Ltd announced that Intel Israel is the best high-tech company for the second year in a row, followed by Google Israel, IBM, Microsoft and SAP, according to The JPost.

The BDICoface survey was conducted among more than 12,000 high-tech workers around Israel.

Intel, with 7,350 workers, ranks not only as the best high-tech company to work for in Israel, but the best company in Israel overall, based on a BDI survey last May.

Other favored companies include Google Israel, which advanced most in the ranking jumping to second place from eleventh in the 2007 survey.

In third place in the high-tech survey, after Google Israel, was IBM Israel, which generated an estimated NIS 2.2 billion in revenue in 2007 and employs 1,700 people.



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