

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES
June 2012 Vol. XX VII Issue No.6

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Using Solar Energy

Solar power in Israel refers to the use of solar energy in Israel, which began in the early years of the state. In the 1950s, Levi Yissar developed a solar water heater to address the energy shortages that plagued the new country. By 1967 around one in twenty households heated its water with the sun and 50,000 solar heaters had been sold. With the 1970s oil crisis, Harry Zvi Tabor, the father of Israel's solar industry, developed the prototype of the solar water heater now used in over 90% of Israeli homes. Israeli engineers are at the cutting edge of solar energy technology and its solar companies work on projects around the world.

With no oil reserves and the country's tenuous relations with its oil-rich neighbors, the search for a stable source of energy is a national priority. Solar technology in Israel has advanced to the point where it is almost cost-competitive with fossil fuels. The high annual incidence of sunshine in the Negev Desert has spurred an internationally renowned solar research and development industry. At the end of 2008, a feed-in tariff scheme was approved which has led to many residential and commercial solar energy power station projects.

The irony of the energy situation is that sufficient oil and gas has been found and Israel will no longer be dependent as it still does today.

As we went to press an Israeli oil and gas exploration firm announced that it had discovered a major oil and gas bed in the Mediterranean Sea, off the Haifa coast.

Israel A statement said that its Pelagic fields contain an estimated 1.4 billion barrels of oil and 177 billion cubic meters of natural gas, according to a business daily.

"The quantity of gas discovered in the licenses, and the high probabilities, make it the third largest offshore discovery to date," according to company chairman Ronny Halman, who

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said that the findings were better than initial estimates.

The five contiguous offshore fields - Aditya, Ishai, Lela, Yahav, and Yoad - are located 170 km west of Haifa, and cover 500, 000 acres. They are adjacent to the larger Leviathan (450 billion cubic meters) and Tamar (240 billion cubic meters) fields, which were discovered several years ago.

"This quantity guarantees Israel's energy future for decades, and makes it possible to export Israeli gas, and boost the state's revenues without worrying about gas reserves for domestic consumption," Halman said of the estimated \$100-project, due to begin drilling by the end of the year.

Israel's smaller Yam Tethys rig, located off the Ashkelon coast, is fast depleting as it is the country's sole source of natural gas. Israel decided to rely solely on the platform's flagging output, due to over a dozen bombing attacks by saboteurs on the Egypt-Israel pipeline near el-Arish throughout 2011 and into this year.

Israel's Water and Energy Minister Uzi Landau has made switching over from Egyptian gas a linchpin of the country's energy development policy.

Together, the oil and gas finds could, potentially, change the strategic face of the region and turn Israel into an energy exporter.

However, a visiting energy expert told The Jerusalem Post that the country would likely not see a revenue stream before 2020.

"This is a developed economy," said Nick Butler, a former British Petroleum Group vice president of strategy.

"I don't see why Israel could not develop gas grids in major cities to bring it to every business and every home. That is what has worked in most European countries, and there is no physical reason that cannot be done here," Butler said.

A green farm for cheese thrives in the desert. Thanks to the fast-growing technology of water resource management, the dry Negev desert in Israel is becoming an increasing draw for entrepreneurs, such as vintners, botanists, farmers, and even luxury hotels.

The extra-dry Negev desert isn't an ideal place to settle down and start a dairy farm. But driven by a pioneer spirit, that's exactly what Anat and Daniel Kornmehl did 14 years ago when they left Jerusalem, purchased 100 goats, and set up on a rocky hillside near the town of Sde Boker.

They are now a major supplier of goat cheese to restaurants in Tel Aviv, producing 1,500 liters, or about 400 gallons, a week, ten months a year. They also operate a dairy restaurant for tourists on the premises. Because they love the land of Israel, they explain that they could never cause harm to its environment.

That's why the Kornmehts have worked with

Israel High-Tech & Investment Report

Published monthly since January 1985

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Annual subscription \$95.- per year, for 11 issues,

Israeli residents add 17% VAT

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experts to create a green way to dispose of the considerable amount of high-fat-content waste water, ensuring that it doesn't seep into the water table. Rain in this arid region amounts to just four inches a year, but the potential evaporation rate from the heat is as high as six feet.

"We don't want to hurt the land," said Anat Kornmehl, an eighth generation Israeli. "The land is in very poor condition, very cold and dry in the winter] and very hot in the summer. We don't want to damage it more. We believe this is the right way to do it."

The solution Relevant Products/Services they found involves an 18-foot square artificial wetland. Waste water is filtered through plants, then through a layer of coarse sand and another layer of gravel, all about two feet high. The emerging water is then collected and used, for now, to water shrubbery on the grounds.

When the four-year-old project is expanded next year, the Kornmehts hope the recycled water will be used to irrigate the grazing field for their herd. It will not be clean enough, however, for human or animal consumption.

"As the waste travels through the wetland, it picks up bacteria" that feast on the goat-milk by-product, explains Mike Travis, a native of Eau Claire, Wisconsin who designed and built the wetland as part of his doctoral work in environmental studies at Ben-Gurion University in Sde Boker. "The plant roots are a good place for the bacteria to live, but mostly it is the bacteria that do all the work."

Water Resource Management

The process has been used before in other contexts. "The question was, how would it work in a desert, and how would it work with heavy dairy waste," said Travis.

The Israeli print technology industry rides again

Benny Landa's nanography and Objet's 3D wonders put Israeli developments at the forefront once more.

In the golden age of the Israeli printing technology industry, companies such as Nur Macroprinters, Creo, Scitex, and Indigo arose, and were sold to foreign companies.

The drupa print media fair last week in Dusseldorf provided evidence that the Israelis have still not said the last word on printing. The local representatives included two especially interesting companies. one is Benny Landa's which announced a month ago that it would lead a new digital revolution in the printing world. The second is Objet which produces 3D printers, and which two weeks ago announced a merger with US competitor Stratasys, a merger that has produced a \$1.4 billion company.

In 1977, he founded Indigo, which provided digital printing solutions to printing houses. Landa has always described himself as first and foremost a scientist. Accordingly, Indigo was based on years of R&D. In 1993, he presented, also at drupa, Indigo's solution for simple printing of digital files, and changed the world of printing.

Exit Indigo

In 20002, Indigo was sold to HP for \$720 million, and Landa embarked on the next challenge. At a press conference at the opening of the exhibition, he explained that his return to the world of printing had not been planned. "After the sale of Indigo, I thought I had done all I could in digital printing, and I left in order to work on an energy venture," he said. "We had to develop particles on a nano scale (a billionth of a meter). Then I asked myself how it might work with pigments. We tried, and it works. I realized that it's possible to make nanometric ink that will change printing."

According to Landa, the change he is introducing will facilitate more efficient and higher quality printing in comparison with digital printing today, and will boost the profitability of printing houses in this area.

But while Landa's aspirations seem like progress within the framework of familiar solutions, what Objet offers in 3D printing seems

like something from another world entirely. The printing giants regard 3D printers as toys rather than as serious solutions for the printing industry. But the 3D printers do the real thing, creating products, and not just impressions. Objet's technology is based on a principle reminiscent of inkjet printing, but instead of ink, the mechanism in the printer sprays a polymer that solidifies immediately on contact with the surface.

This is one of several 3D printing technologies. Objet's business model is similar to that of regular printer manufacturers, that is to say, sale of the printers and the consumable materials. In this case, the material is a sort of synthetic resin from which the product is built inside the printer. The market itself is still in its infancy, and the computing giants are not yet active in it. The entire printing market, according to some estimates, is worth some \$600 billion, including consumables, the printing industry, and personal printers. The 3D market totaled \$1.3 billion in 2011, according to research firm Wohlers Associates, and will swell to \$3 billion in 2016 small change in terms of the industry as a whole.

As with Landa, Objet's roots are sunk deep in the Israeli print technology industry. Gershon Miller, one of those who founded the company in 1998, is a leading figure in the industry in Israel. He was a founder of Idanit Technologies, which produced digital printers for advertising posters (wide format). Idanit was sold to Scitex in 1998, later becoming Scitex Vision, before being sold to HP in 2005. David Reis, who was president of Idanit, is now CEO of Objet.

Objet has aspirations to sell printers to the home market as well, which at current prices looks unrealistic, but that could soon change. "Would anyone have believed once that we would be able to buy an inkjet printer for \$50 at Office Depot?" is the response at the company when the idea that private users will one day keep a 3D printer on their desks is questioned. At present, a reasonably good 3D printer starts at ten thousand dollars, and that's before the consumables.

Printing the product

But in this instance, truth could turn out to be stranger than fiction. Imagine that you could print out in your office the wonderful doll that your children crave, without turning up at a Walt Disney store in the US. Stratasys, the US company with which Objet is merging, provides working models of products that come out of the printer, thus complementing Objet's solutions, which are intended more for testing models as part of product design.

This means that we could have products produced at home, according to our personal design, or based on designs in digital format from external sources. Such products could be key holders, toys, kitchen utensils, automobile parts, clothes, or even prostheses, all home made on the printer. Looking further ahead, it is possible to envisage technological developments in the materials out of which these products are made, so that we might obtain food products from the printer instead of out of the oven. It's not for nothing that these developments are called "desktop factories".

Another model, already feasible, is the leasing or sale of such printers to businesses. The private user who wants a "printed" product will be able to buy printer services. The availability of the possibility of printing some of the products we use daily, will change the familiar world of consumer products, and from this point of view, the change that Objet could bring to the world is no less significant than what is promised by advanced two-dimensional printing technology.

Deloitte recently estimated that 2012 would be the year in which 3D printing would become a viable segment in some markets, and that the price of the printers would approach the region of \$1,000. However, Deloitte also warns that the excitement over the potential for the private user could end in disappointment: "the current technology is subject to several significant limitations. While some of these will be overcome in the medium term, others are the result of fundamental constraints that are unlikely to be resolved," its report states.

How the blind can ‘read,’ according to standard testing, shown in HU research

A method developed at the Hebrew University of Jerusalem for training blind persons to “see” through the use of a sensory substitution device (SSD) has enabled those using the system to actually “read” an eye chart with letter sizes smaller than those used in determining the international standard for blindness.

The eight congenitally blind participants in the Hebrew University test group passed the conventional eye-exam of the Snellen acuity test, technically surpassing the world-agreed criterion of the World Health Organization (WHO) for blindness and moving them to the level of (low-vision) sighted. These results were published recently in the PLoS One Journal in the US.

The Snellen test is a standard visual test in which the patient views a chart which contains the letter E facing four different directions and in various sizes. The patient sits at a specific distance of 20 feet (6 meters) and has to determine the direction of the E’s, and according to the smallest size he can read, his visual acuity is determined.

Normal vision is considered 20/20, referring to both the distance and size of the symbols on the eye chart. The congenitally blind participants in the Hebrew University test group reached a median level of 20/360, meaning they could identify letters from a distance of 20 feet that a normally sighted person (with normal vision) would be able to identify from 360 feet. The 20/360 result is better than the World health organization criterion for blindness, which is 20/400.

The Hebrew University researchers -- Dr. Amir Amedi, of the Edmond and Lily Safra Center for Brain Sciences and the Institute for Medical Research Israel-Canada at the Hebrew University, and Ph.D. student Ella Striem-Amit -- have been using a sensory substitution device developed by Dr. Peter Meijer of Holland and called “The vOICe.” The device converts images from a miniature

camera into “soundscapes,” using a predictable algorithm, allowing the user to listen to and then interpret the visual information coming from the camera.

Remarkably, proficient users who have had a dedicated (but relatively brief) training at Dr. Amedi’s lab were able to use SSDs to identify complex everyday objects, locate people and their postures, read letters and words, and even identify facial expressions.

Recently, the ability to extract and “translate” fine visual detail in this manner was demonstrated in an experiment led by Striem-Amit in which, for the first time, congenitally blind vOICe users were subjected to an ophthalmologist’s standard visual acuity test, using sounds. Surprisingly, not only were the blind SSD-users able to tell which way the “tumbling E’s” were turning using sounds, but most of them could perform the test at small letter sizes, below the standard World Health Organization’s blindness threshold.

Such visual capacities greatly surpass even those possible by the most advanced cutting-edge retinal prostheses (“bionic eyes”) available today. In fact, even though retinal prostheses may improve their resolution in the future, and have the advantage of providing the sensation of sight, they will not be accessible to a large population of blind individuals. Retinal prostheses target only very specific blindness etiologies, leaving many others without medical cure.

This factor, as well as the invasiveness and high cost of retinal prostheses make non-invasive and very cheap SSDs, such as The vOICe or other novel SSDs developed in Amedi’s lab, attractive alternatives, which can be available already today to the 39 million worldwide blind population, the majority of whom live in developing countries, who could already enjoy the adventure of learning to “see” in high resolution, using sound.

Connecting rural China to the Internet via Israeli technology

Alvarion has set up a wi-fi network that will let

residents of the most out-of-reach areas of China connect to the web

China's economic revolution has transformed the lives of tens of millions of people living in the country's more industrialized coastal and southern areas, but millions more have been "left behind" in China's largely agrarian interior. There, they live much like their ancestors have for hundreds of years, on subsistence crops, and in great poverty. Most of the villages in the interior provinces barely have electricity, to mention nothing of phone and Internet connections.

Many young Chinese in these regions — as many as 20 million a year — see their future in the cities, prompting what experts have called the largest urban migration in history. While China has not taken steps to prevent this migration, the authorities are working hard to build infrastructure and industry in the interior, in an attempt to keep as many people as possible there and out of the big cities.

Essential to any modernization effort is the installation of high-speed Internet, but laying down cables in China's interior would have been very difficult, given the area's rough terrain. The only option for high-speed internet in much of China is wireless Internet, but even wi-fi is an iffy proposition in rural China because of the great distances involved and, in many areas, hilly and mountainous topography.

One solution that has been implemented successfully comes from Israel's Alvarion, which, via its Wavion unit, makes equipment and applications especially designed for use in rural environments. Alvarion has partnered with China's Beijing Huasun Unicreate (BHU) to eventually install a total of 10,000 base stations in Liaoning province. The base stations are designed to allow two way-communication even in areas where line-of-sight connections are not possible.

Liaoning Province is situated in the southern part of northeast China and has a total population of 40.9 million citizens, of whom 23.7 million are considered rural and had no

telephony or Internet connection to surrounding regions. So far, about 2,500 of the stations have been installed, mostly covering the province's principle cities, including Shenyang (the province's capital city), Tieling, Fushun, Chaoyang and Fuxin, and further deployments will allow residents of rural villages and farms to get high-speed Internet.

This isn't Alvarion's first foray into the "the boondocks." The company has set up 4G networks in places like Cameroon, Nigeria, Mozambique, and rural India, as well as in cities in the US and Canada. Alvarion, based in Tel Aviv, was one of the pioneers of wireless Internet, and even claims to hold the world record for the longest wireless network link between two points ever achieved — 310 kilometers (190 miles) from ground to a weather balloon.

Commenting on the project, Tal Meirzon, COO at Alvarion, said that "covering vast areas of rural landscape and being able to connect such a large population with Alvarion's wi-fi technology, only serves to solidify our commitment to bridging the digital divide and giving access to wi-fi services that improves people's and communities' day to day lifestyles."

Tech ingenuity helps desert bloom with produce

Stepping out of a greenhouse alongside the Dead Sea, Naftali Lazarovich holds three of the juiciest bell peppers he can find -- orange, yellow and red -- tearing into them with his hands to offer slices to guests.

"The green ones don't have as much flavor," says the researcher, explaining why they are less popular.

The mouth-watering produce grown here in the Arava region, between the Negev desert and the Mediterranean, is popular in both Israeli and European markets. What makes it unusual is that it thrives in the middle of one of the most arid places in the world, where only weeds should grow, not cantaloupe, tomatoes or bell peppers.

Making this feat possible is clever usage of

a very limited water supply, with not a drop wasted and a high-tech system that constantly monitors the plants to make sure their needs are met.

"It only rains 20 millimeter a year here, less than one inch," said Lazerovitch, whose Central and Northern Arava Research and Development Center is supported by Ben-Gurion University. "That's nothing."

The irrigation comes up to the surface from ground water located six feet below, in this region close to the Jordan River and Dead Sea. But the margin for error is extremely small. Because of the arid climate, even one day without water will lead many of the crops to start withering. "The bank account is very small," he says.

In an area with such arid conditions as this, the rain is not just inconsequential, it can even bring harm when it finally does arrive. Lazarovitch explains that when rain seeps into the greenhouse, it deposits saline into the root zone around the plants, harming the water uptake. He says farmers in the region have taken to irrigating during rainfall just to flush the salt out of the root zone.

There's an App for that

Walking along a row of tomato plants, Lazarovitch points out a sophisticated set of electric sensors that constantly measure moisture to provide the proper balance.

Lazerovitch says can get readings any time of day, simply by checking a readout sent to his smartphone. "I'm checking the water in, and the water out, so I can see the uptake of the plant," he said.

"We use mainly [Utah-based] Campbell Scientific data loggers and sensors designed for environmental studies but also for agriculture. We manipulate some of the sensors so they will be optimal for our needs."

A farmer's job in this region, which desperately needs economic development, means coping with low humidity and high ultraviolet radiation, since it is so far below sea level and there is so much air to absorb it.

The techniques being perfected here in the desert are also being shared with area farmers to help them succeed and expand their output. In addition, findings are being published in journals such as "Irrigation Science and Water Management" to help agriculture thrive in other arid regions.

"If you love agriculture, you can improve things," Lazerovitch said, taking a bite of a juicy red pepper -- especially that is, if you have the right mix of technology Relevant Products/Services and ingenuity.

EMC buys XtremIO for \$430m

The storage systems company is EMC's sixth acquisition in Israel.

After several months of intensive talks, EMC Corporation (NYSE: EMC) has acquired storage systems company XtremIO for \$430 million. EMC confirmed the acquisition on Thursday with a brief statement saying, "XtremIO's all-Flash, scale-out, enterprise storage architecture was designed to leverage Flash memory. XtremIO technology will complement the range of EMC Flash-based systems and software stemming from EMC's early entry into the Flash storage market. The all-cash transaction is not expected to have a material impact to EMC GAAP or non-GAAP EPS for the full 2012 fiscal year."

XtremIO was founded by a group of Israeli high tech veterans including Aryeh Margi, a co-founder of M-Systems; Shuki Bruck, Yaron Segev, and CEO Ehud Rokach, a former senior executive at Orckit and CEO Corrigent.

The exit is an exceptional success for Israel's venture capital industry. The company was founded in 2009 and has raised only \$25 million to date in two financing rounds. Founders and employees will also be sharing out a great deal of money. The company has offices in Herzliya and San Jose, California.

Investors also include venture capital funds

and possibly one of the global storage giants which also invested in the Israeli company. The two best known investors in XtremIO are Jerusalem Venture Partners (JVP) and Giza Venture Capital, which each hold 20-30% of the start up, in other words returns of \$100-150 million. Other investors include Battery Ventures and Lightspeed Ventures. The last fundraising round was in late 2011 and the company still probably has several million dollars left to spend from that.

The company has yet to generate revenue from its storage systems which are based on flash memory, and according to its website it is currently conducting trials with customers and potential partners. The system itself is not yet available and will only be completed later in 2012. While the talks for the acquisition have been exceptional in terms of the sums of money involved, nevertheless such a large amount is appropriate for the storage sector.

The acquisition of Radvision, which does videoconferencing and telepresence technologies over IP and wireless networks, will provide Avaya customers with high-definition video collaboration products, the companies stated.

Each company's board of directors has approved the arrangement, but it is still subject to closing conditions. The takeover should close within 90 days if all is approved, with Radvision shareholders receiving \$11.85 a share.

"We believe this transaction will leverage a highly-skilled, incredibly talented and experienced workforce ready to deliver video to enterprise customers," stated Avaya CEO Kevin Kennedy.

Avaya, which is owned by private-equity firms Silver Lake and TPG Capital, provides business collaboration and communications solutions. The New Jersey-based firm had 375 employees in Ottawa as of September.

In Ottawa, Avaya bought Nortel Network Corp.'s enterprise solutions business for US\$915 million in 2009 and became a ten-

ant at the former Nortel facility on Carling Avenue.

Avaya signed a 10-year lease at 425 Legget Dr. last fall with property management and development firm Canderel. The company will occupy nearly the entire listed space of the building – 104,000 square feet – around fall 2012.

technology that mimics the human brain Intel Corp is launching research in Israel into technology that mimics the human brain and develops devices that "learn" about their user.

"Machine learning is such a huge opportunity," Justin Rattner, Intel's chief technology officer, told reporters in Tel Aviv.

"Despite their name, smartphones are rather dumb devices. My smartphone doesn't know anything more about me than when I got it," he added.

"All of these devices will come to know us as individuals, will very much tailor themselves to us."

The research, to be carried out by the Intel Collaborative Research Institute for Computational Intelligence along with specialists from the Technion in Haifa and the Hebrew University in Jerusalem, is aimed at enabling new applications, such as small, wearable computers that can enhance daily life.

For example if a user leaves his car keys in the house, the device will in the first week remember where he left them and by the second week will remind the user to pick up his keys before leaving home, Rattner said.

Such devices, which continually record what the user is doing, will be available by 2014 or 2015, he said.

"Within five years all of the human senses will be in computers and in 10 years we will have more transistors in one chip than neurons in the human brain," said Moody Eden, president of Intel Israel.

Rattner said Intel is already implementing the new technology in digital signs it created for Adidas. The signs determine whether the shopper is male or female, adult or child and shows shoes suitable to that person.

He said this was part of Intel's expansion beyond its traditional semiconductor business.

Romanian girl saved by Israeli innovation at Hadassah

A Romanian mother was advised to visit Israel to treat her seven-year-old daughter's rare genetic flaw, which prevented the girl's body from producing blood cells. Romanian doctors had given up and stated there was no chance to cure the girl's disease.

According to Yedioth Ahronoth, the Romanian girl was sent to a bone marrow transplant department in Hadassah Ein Kerem Hospital in Jerusalem, where she was successfully treated in a revolutionary new stem cell process and will be released this week back to Romania.

Israeli startup leading the next evolution in videogames

Playcast is one of the leaders in gaming industry's shift to cloud based gaming

In 2010, consumers in the United States alone spent approximately \$15.5 billion dollars on games content. This number might seem staggering, and yet it is in sharp decline.

This decline is due in part to the shift in our general approach to entertainment content. When it comes to movies, for example, we've turned to Youtube, or video-on-demand, instead of purchasing a DVD. Yet game consoles like the Xbox or Playstation still force us to buy games.

Leading the way towards a significant shift in the gaming industry is Israeli company Playcast. The company's technology enables cable and satellite television companies to offer the latest games without the need to

buy an expensive console or the games themselves, much like your video-on-demand service. The games almost equal the quality of console games, but only require registering for the service and a remote. This new technology is known as "cloud gaming."

Elad Dror, VP Solutions at Playcast, tells NoCamels: "As in a VOD channel, all users do is subscribe to the Playcast service for a monthly fee and choose the package that is most relevant to their tastes and gaming."

Earlier this year Playcast signed an agreement with French carrier Bouygues Telecom SA for its Bbox IPTV subscribers, who will pay monthly subscription fees to use any of the latest games. Playcast also has similar agreements with Portugal Telecom SA and Singapore Telecommunications Ltd.

The games are located on a designated channel where Playcast's portal operates, which offers different game packages, updated every month.

"Cloud gaming not replacing consoles"

Dror said that "cloud gaming is not here to replace consoles, but is a necessary step in the evolution of video games."

The company's employees, he says, "are first and foremost game lovers who respect the place of game consoles and see them as part of the world of gaming."

Dror said it wasn't easy to overcome the challenge of streaming the games instantaneously. While streaming video content is like a one way traffic, video games require real-time two-way traffic. "This means that video data needs to flow back and forth at zero delay," Dror says.

But Guy de Beer, CEO of Playcast, said that while video processing experts might notice a slight reduction in quality compared to consoles, regular users will not.

Playcast is currently working on creating a more seamless interaction between gaming

and social networking. Dror says this can mean finding your friends and inviting them to multi-player sessions, uploading brag clips to YouTube, etc.

Conquering the home market

The privately-held company is based in Israel and has operations in seven Western European markets, as well as Singapore, Korea, China, Brazil and the US. According to Dror, it enjoys a steady stream of revenue from its deployments in Europe and Asia. "However, since Playcast is still in the expansion stage – both in terms of R&D and commercially," he adds, "we are moving on to new territories raising additional funds."

Playcast, founded in 2007, has one more gaming country it wants to conquer: Israel. "We expect the service to launch in our home market towards the end of this year or in early 2013," Dror says.

Playcast has so far raised \$12.7 million. Investors include Jerusalem Venture Partners and Xenia Venture Capital. The company has 40 employees located in Caesarea, Israel.

Intel Israel accounts for 40 percent of tech giant's revenue share

Israeli high-tech company Intel Israel Ltd. now accounts for 40 percent of Intel Corporation's revenue and plans to hire 600 new employees in 2012.

Intel Israel's exports totaled \$22.4 billion in 1999-2011, and the company's exports totaled \$2.2 billion in 2011, said Maxine Fassberg, the company's general manager, at Intel's recent annual press conference in Kiryat Gat, reported Globes, Israel Business News.

Intel Israel developed the Ivy Bridge platform for computer processors, which is about to enter the commercial market. Intel Israel has also founded 230 companies and hired 250 employees a year since 2006.

Facebook set to buy Face.com for \$80-100m
Facebook is expected to acquire the Tel Aviv based face recognition technology developer.

Facebook Inc. (Nasdaq: FB) is set to acquire Israeli face recognition technology developer Face.com, reportedly for \$80-100 million, within days, after months of rumors about a deal. The two companies have collaborated for a long time, with Facebook using Face.com's technology to help users tag the faces of friends in pictures they upload on the social network with Face.com's Photo Tagger service.

Previous reports of negotiations between the companies never materialized into a deal, but following Facebook's IPO and the capital raised, the companies are apparently close to a deal.

Russian business paper "Vedomosti" reported that Face.com's shareholder, Russian search engine Yandex, is in talks to sell its stake in the company to Facebook for cash and Facebook shares. Yandex invested \$4.3 million in Face.com in September 2011, together with Daniel Recanati's Rhodium Ventures for an 18.4% stake. Yandex CEO Arkady Volozh joined Face.com's board as part of the investment.

Other Face.com investors include Yaniv Golan, Yariv Gilat, and co-founder Eden Shochat. The Tel Aviv based company has raised \$5.8 million altogether since it was founded in 2007. Market sources say that if a deal is struck, Face.com's investors will make a handsome return on their investment.

Face.com co-founder and CEO Gil Hirsch declined to comment on the reports, saying, "There is nothing new to announce right now."

Industry sources also declined to respond to queries about the deal, but said that they were familiar with the details, suggesting that there are serious behind-the-scenes talks.

Hirsch, CTO Yaniv Taigman, chairman Moti Shniberg, and director Eden Shochat founded the company in 2007. Its early years were devoted to developing and upgrading its face recognition software, which is based on API (application programming interface) open code.

The company charges licensing fees for use of its technology.

In January 2012, Face.com slightly changed direction with the soft launch of its first independently developed application. The iPhone KLIK app automatically tags faces via smartphone to identify friends from the user's Facebook profile. The app, which garnered widespread media coverage earlier this month following the public launch of its new version, has already had more than 100,000 downloads.

Face.com is planning a similar Android app, as part of its mobile-based strategy. This strategy also interests Facebook, which has been trying in recent months to focus on mobile apps, as more than half of Facebook users access it via their smartphones.

In its prospectus, Facebook said that the mobile sector is its weak point; until March it had no mobile advertising applications capability. It has since hit the accelerator, acquiring several mobile app companies, including Instagram for \$1 billion.

Many eyebrows were raised over the acquisition of Instagram, which enables friends on internal social networks to share pictures, alongside artistic filters for pictures taken via the application. More astonishment followed Facebook's decision last week to launch its own photo app, which does exactly the same thing as Instagram's app operating filters on photographs.

Industry sources believe that Facebook's acquisition of Face.com will enable the social network to embed face recognition software into its photo app. It will also be able to use the technology for other purposes in the future and maybe even monetize Face.com technology assets in ways that the Israeli company has not been able to do.

Face.com is the second Israeli acquisition. If Facebook acquires Face.com, it will be Facebook's second acquisition in Israel, following the acquisition of Snaptu for \$70 million in March 2011. Snaptu's app provides ordinary mobile phones (not smartphones) easy access to social networks, such as Facebook and Twitter.

technology that mimics the human brain
Intel Corp is launching research in Israel into technology that mimics the human brain and develops devices that "learn" about their user.

"Machine learning is such a huge opportunity," Justin Rattner, Intel's chief technology officer, told reporters in Tel Aviv.

"Despite their name, smartphones are rather dumb devices. My smartphone doesn't know anything more about me than when I got it," he added.

"All of these devices will come to know us as individuals, will very much tailor themselves to us."

The research, to be carried out by the Intel Collaborative Research Institute for Computational Intelligence along with specialists from the Technion in Haifa and the Hebrew University in Jerusalem, is aimed at enabling new applications, such as small, wearable computers that can enhance daily life.

For example if a user leaves his car keys in the house, the device will in the first week remember where he left them and by the second week will remind the user to pick up his keys before leaving home, Rattner said.

Such devices, which continually record what the user is doing, will be available by 2014 or 2015, he said.

“Within five years all of the human senses will be in computers and in 10 years we will have more transistors in one chip than neurons in the human brain,” said Moody Eden, president of Intel Israel.

Rattner said Intel is already implementing the new technology in digital signs it created for Adidas. The signs determine whether the shopper is male or female, adult or child and shows shoes suitable to that person.

He said this was part of Intel’s expansion beyond its traditional semiconductor business.

Romanian Girl Saved by Israeli Innovation at Hadassah

A Romanian mother was advised to visit Israel to treat her seven-year-old daughter’s rare genetic flaw, which prevented the girl’s body from producing blood cells. Romanian doctors had given up and stated there was no chance to cure the girl’s disease.

According to Yedioth Ahronoth, the Romanian girl was sent to a bone marrow transplant department in Hadassah Ein Kerem Hospital in Jerusalem, where she was successfully treated in a revolutionary new stem cell process and will be released back to Romania.

Israeli company offers first ‘medical smartphone’

LifeWatch Technologies has developed a device that essentially lets users get a full medical checkup just by picking up the phone

LifeWatch Technologies, an Israeli company that, along with its Switzerland-based parent firm, is one of the world’s largest home medical

monitoring companies, unveiled the world’s first “medical smartphone” this week. The LifeWatch V is equipped with numerous monitoring and measurement tools, including tools to monitor heart rate, body temperature, blood sugar levels, cholesterol levels, blood pressure, and others.

Essentially a medical device, LifeWatch is seeking government approval in the US and EU for the phone. The worldwide market for the device is estimated by LifeWatch to be at least a billion people. For now, the device will be marketed in Israel. The company cited research that the market in the US alone is worth \$1.5 billion, and is growing by 20% a year.

The device works as a phone, with normal smartphone functions, but also records important medical information and uploads it to LifeWatch’s remote monitoring service, which records a user’s health and updates his medical records, alerting emergency services when necessary. Users monitor themselves with the LifeWatch V by holding it on its four corners, where the measurement and monitoring sensors are located. To take their temperature, users pass the device across their foreheads.

The sensors, while advanced, are available on numerous devices designed for home use currently available. The LifeWatch V represents the first “all in one” device with the sensors, offering users cloud services to store and analyze their medical information. The phone itself is based on the Android 2.3 operating system, an older version of Android. However, LifeWatch said that the next edition of the phone, due out in 2013, will run the latest version. The service itself will cost between \$10-\$30 per month,

depending on monitoring options chosen. The phone itself will be sold through the networks of stores operated by the cellphone service companies. Sales will begin in the coming weeks, the company said.

LifeWatch Technologies, based in Rehovot, has about 60 workers. Dr. Ya'akov Geva, CEO of LifeWatch, said that the device was "a breakthrough Israeli development that we expect to market here and around the world. Many different groups, including doctors and individuals who want to keep track of their health, will find the LifeWatch V useful. Individuals who need constant monitoring, including diabetes sufferers and cardiac patients, will also find the device very useful and make their lives easier. The LifeWatch V," he added, "is a giant step forward in providing information and control for consumers on the state of their health."

Israeli Ice Cream Shop Serves Hummus Ice Cream

Hummus, the savory Middle Eastern spread made from chickpeas, isn't just for dipping anymore. An ice cream shop in Jaffa, Israel, is now serving hummus ice cream to patrons looking for something a little different.

Italian ice cream shop La Genda created the flavor with ground chickpeas, tahini, vanilla, sugar and stabilizers.

"I am a hummus freak. I always thought that one day we should make ice cream out of hummus, and after many experiments, we checked the right temperature, the right kind of grains, and achieved the perfect product," said owner Michael Mina to an Israeli television station.

Ice cream maker Boris Schwartz said the flavor has the familiar taste of hummus but that "it is a little sweeter than usual."

"It is a little strange, not for everyone, it's for

people who like special things," said Schwartz.

One taste tester wrote, "It is supposed to have some chickpeas and olive oil in it as well, but it actually tastes the most like lemony Halva (halva is made from tahini and honey or sugar(sic))."

Afraid to try the dip-inspired treat? The chain offers over thirty flavors for patrons trying to beat the heat.

"We have prepared a few other kinds of ice cream, an avocado ice cream, and two weeks ago tried garlic ice cream. We are trying to renew ourselves," said Schwartz.

Quotium Technologies acquires Israeli company Seeker Security Ltd.

Quotium Technologies (listed on the NYSE Euronext Paris-QTE) announces that it will increase its holding to 100% in Seeker Security. The two companies have been working together for three years to develop Seeker, an automated solution for guaranteeing application security. This partnership has the EUREKA label - given to the most innovative companies - awarded by the OSEO in France and the OCS in Israel. The Seeker solution was first brought to market in late 2011.

Michel Tiberini, President of Quotium Technologies, explains: "This acquisition will allow us to benefit from the extremely strong expertise of Seeker Security engineers as well as from increased technological resources. It is in line with our strategy for growth on the market for critical business applications and data management solutions."

According to Ofer Maor, President of Seeker Security and the new CTO for Quotium Technologies: "With Quotium, we are going to be able to pursue our efforts in Research & Development while stepping up sales of the Seeker solution in Europe and the United States."



Seeker is an innovative solution developed to identify security flaws from the very beginning of the application development cycle. Seeker pinpoints vulnerabilities, verifies their degree of criticality and records this information in a video file.

Entirely automated, the process requires no technical expertise for its operation. This solution has been recognized as a major innovation in the security field, most notably by the Gartner Group and at the 2011 RSA conference in the United States.-



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