

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES
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JOSEPH MORGENSTERN, PUBLISHER

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Venture Capital is Booming

2016 marks the thirty-first year of our publication. Our report has been read in China, Australia and not to mention the countries of the western world.

Our website continues to gain in popularity. In the past 12 months it has benefited from more than one million clicks.

We also get numerous inquiries about Israel's high technology scene.

New Imaging Method to Lower Risks in Gallbladder Removal Surgery

Fiber-optic illumination identifies bile ducts to minimize risk of injury during laparoscopic procedures.

Egyptian surgeon at Hadassah Medical Center led Hebrew University BioDesign team in Jerusalem

Laparoscopic cholecystectomy is a minimally invasive procedure for gallbladder removal, and one of the most common surgical procedures worldwide. While the procedure has a very high success rate, 1 in 200 patients will sustain serious bile duct injury, primarily due to misidentification of the biliary anatomy. With 800,000 procedures carried out in the United States each year that means in the U.S. alone 4,000 patients will be seriously injured.

Current attempts to simplify bile duct

identification rely on the intravascular injection of contrast agents and fluorescent dyes, which significantly increases the duration and complexity of the laparoscopic procedure. For this reason, these technologies are seldom used. Students at the Hebrew University's BioDesign program developed a new imaging technique to reduce the risk of injury during gallbladder removal.

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The medical Innovation program, created by the Hebrew University of Jerusalem and its affiliated Hadassah Medical Center, set out to develop a solution to this problem.

"The laparoscopic procedure is so simple and fast that surgeons are reluctant to make it complex by adding new imaging modalities," said Dr. Muhammad Adileh, who led the BioDesign team. "We had to find a solution that wouldn't complicate things by changing the procedure or increasing operation time."

Partnering with Prof. Yaakov Nahmias, director of the Hebrew University's Alexander Grass Center for Bioengineering, the team identified a unique spectrum of bile acid absorption.

"We found that red light in the visible range is predominantly absorbed by bile acids in the biliary tree," said Nahmias.

Animal experiments showed the team was able to identify bile ducts just by switching the color and direction of incident light.

"This is a significant discovery," said Nahmias, "allowing surgeons to carry out the standard laparoscopic procedure and identify bile ducts with a single flip of a button."

The project, called CholeVision, will culminate in a dedicated laparoscopic tool that would allow surgeons to avoid bile duct injuries and their devastating consequences.

The BioDesign business development team, led by MBA students Rotem Yarkoni and Asher Saban, stated that insurance claims amount to \$1 billion annually in the United States alone, suggesting a significant market potential for the new invention. Other team members included Dr. Elad Sharon and Gahl Levy.

BioDesign: Medical Innovation is a multi-disciplinary, team-based approach to medical innovation, created by the Hebrew University of Jerusalem and its affiliated Hadassah Medical Center. Sponsored by Boston Scientific

and the Terumo Medical Corporation, the program takes outstanding medical fellows, bioengineering and business graduate students, and tutors them in the science and practice of bringing a medical innovation to the market.

The innovations produced by the Biodesign program participants are commercialized by Yisum, the technology transfer company of the Hebrew University of Jerusalem, and Hadasit, the technology transfer company of the Hadassah Medical Center.

The program is directed by Prof. Yaakov Nahmias, director of the Alexander Grass Center for Bioengineering at the Hebrew University of Jerusalem, and Prof. Chaim Lotan, director of the Heart Institute at Hadassah Medical Center.

IAI unveils unprecedented radar system as long-range ballistic missile threats increase

Israel Aerospace Industries (IAI) unveiled the TERRA radar system, which is capable of

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early-warning detection and accurate tracking of very long-range targets.

TERRA has been operating for two years already, in the service of a client that IAI declined to name.

IAI subsidiary ELTA Systems, which has built the radars for all of Israel's air defense systems, unveiled TERRA at a security facility in southern Israel on Sunday.

The system is made up of two radars: The UTRA UHF band system, which ELTA unveiled earlier this year, and the new SPECTRA S-band system, which ELTA officially introduced to the international market.

Moshe Dehokerker, business development department manager, told reporters that SPECTRA is designed for long-range tracking of targets like ballistic missiles, cruise missiles, hostile aircraft, and even satellite movements in space, while ULTRA's strength lies in autonomously searching, detecting, and classifying incoming threats.

Though they can work separately, the two provide an unprecedented view of incoming threats when linked up, he said.

"TERRA's enhanced performance is achieved through automatic handover and redundancy between the ULTRA and SPECTRA radars, combined with improved target load sharing, Electronic Counter-Counter Measures (ECCM) and severe-weather resilience," IAI said in a statement.

Both systems are active electronic scanned array (AESA) radars that can be set up separately, or combined.

Despite their large size and weight, both can be quickly moved and set up, and SPECTRA can be mounted on a moving ship to provide a very large radar coverage area - larger than

any other offshore radar system can provide.

SPECTRA can "detect and classify missiles and estimate their impact time," Dehokerker added.

Together, both systems create a unified "picture of the sky," he added.

When working in synergy, the systems employ two bands, making them all-weather resilient systems that provide 360-degree coverage.

SPECTRA is able to turn while tracking its targets.

The system comes at a time of increasing long-range ballistic threats from Iran. According to Gal Alon, business development director at ELTA, current Iranian missiles are twice as fast and have double the range, compared to Syrian and Iraqi missile threats 10 to 15 years ago.

TERRA is designed to detect longrange threats as quickly and "as soon as they enter the picture," he said. TERRA is the most mobile system of its kind in the world, he added.

Officials at ELTA added that two global powers have only begun developing systems with these capabilities.

It took ELTA three years to complete the research and development phase of the project. "This is a huge achievement for us," said Alon.

A number of potential clients have expressed interest in the system, including in the possibility of installing SPECTRA on a navy ship.

Microsoft Buys Data Security Firm Secure Island

A nine-year-old Israeli tech company that provides embedded security for documents of all kinds has been acquired by Microsoft for an undisclosed sum. Secure Islands is the fifth

Israel-based company -- and the third Israeli cybersecurity firm -- purchased by Microsoft over the past year.

Founded by brothers Aki and Yuval Eldar, Secure Islands' flagship product is called IQProtector. The company said IQProtector "immunizes" data by embedding classification and security protections into documents at the moment they're created. The transaction is believed to be valued at \$150 million, according to *Globes*, an Israeli business publication that first reported on the then-pending deal last month. After the acquisition receives regulatory approval, Microsoft said that it plans to integrate Secure Islands' technology into its Azure Rights Management Service.

Expanding Azure's Data Protection

"This acquisition accelerates our ability to help customers secure their business data no matter where it is stored -- across on-premises systems, Microsoft cloud services like Azure and Office 365, third-party services, and any Windows, iOS or Android device," cloud and enterprise marketing corporate vice president Takeshi Numoto noted today in a blog post.

Secure Islands, which has long been a Microsoft partner, offers a technology that builds on the data protection currently offered through Microsoft's Azure Rights Management Service, Numoto added.

"These new capabilities, combined with the data classification in Windows and Office 365, will provide our customers with the industry's most comprehensive data protection solution," he said.

A Microsoft spokesperson told us the company is "not disclosing terms of the purchase agreement. However, the spokesperson added that Microsoft expected that a significant number of the employees at Secure Islands will continue on post-acquisition.

"By joining Microsoft, we will be able to extend and expand our vision," said Aki Eldar, Secure Islands' CEO, in a blog post on his company's Web site. "Microsoft has been a longtime partner and its leadership in enterprise IT, its resources and global reach will help us innovate and deliver new information protection capabilities to both our current and new customer base."

Customers Include Credit Suisse, UBS

Secure Islands' business customers include Credit Suisse, OSRAM, UBS and Vodafone. Credit Suisse Next Investors also provided \$12 million in financing in September 2014; other investors have brought the company's total funding to \$20 million.

This past September, Secure Islands expanded its product lineup with the release of IQProtector Mobile, which applies data classification and protection policies to files and e-mails on mobile devices. The service works with the help of the company's Data Interceptor, which automatically inspects documents upon creation, converts them to the creator's designated classification, encrypts them and then adds usage rights based on the user's policies. Documents saved in this way can be tracked, audited and analyzed no matter where they are then sent.

Other Israel-based companies that have been acquired by Microsoft in the past year include the cloud security firm Adallom, purchased for \$320 million in July; digital pen company N-Trig, bought for \$200 million in February; the text analysis company Equivio, purchased for \$200 million in January; and the cybersecurity firm Aorato, acquired last November for \$200 million.

Mobeego unveils disposable smartphone charger

The Israeli startup's disposable charging unit costs around \$2.50, while a miniature adapter

costs \$5, for a one-time purchase.

Israeli startup mobeego is carrying out the worldwide launch of its mobeego disposable charger, which can charge a smartphone battery for up to four hours, at a price of around \$2.50 per charging unit. The company describes its product as an "energy drink for the mobile phone" and the charging unit is actually designed in the shape of a tiny energy drink can. The charger is designed as an inexpensive, simple, instant, and environmentally friendly solution for continuous and worry-free use of smartphones, without the need to use a standard smartphone charger, to pre-charge the charging unit, or a cable or even to find an available power outlet. mobeego is suitable for both Google Android and Apple iOS smartphones, as well as most old mobile phones.

mobeego, which invented the environmentally-friendly charger and spent over a year on its development, is now working to establish franchise-based distribution networks worldwide with an emphasis on developed countries. mobeego is already in advanced talks with potential franchisees in several countries, including the US, Germany, France, Belgium, Russia, South Africa, Chile and Israel. The company plans to initially sell several hundred thousand charging units in the coming months and several million charging units a year during 2016.

mobeego was founded in 2014 by a team of Israeli entrepreneurs. The company is headquartered near Ashdod, and uses a manufacturing plant in China. Its vision is to guarantee that mobile phone users over the world can easily access battery power at any kiosk and that no mobile phone will ever be without power during the day.

The disposable mobeego charger is designed for the numerous situations in which the mobile phone's battery runs out - while walking

on the street, on trips, and any time or place where a user is not able or willing to charge his phone the usual way.

The instant chargers are intended to be sold as widely as possible around the world - at kiosks, convenience stores, and a wide range of other points of sale, including bus and train stations, vending machines, hospitals, airports, cinemas, theaters, sports stadiums, and entertainment venues for shows, concerts, and so forth. mobeego is also launching an additional version of its charger, which can charge extreme cameras such as GoPro Hero, Xiaomi Yi and various other extreme cameras.

The company plans to market the charger in extreme sports equipment shops and in ski resorts, in order to make sure that extreme sports enthusiasts will not miss a moment due to lack of energy.

When necessary, a user can buy the charger at an easily accessible point of sale and charge the battery in order to use the phone. To protect the environment, every user can throw away the mobile phone "energy pack" at a special facility at the mobeego point of sale.

The Israeli startup is currently developing a new model, which will be available shortly, which will include a deposit that will be refunded to users who return the disposable charging unit. The mobeego charger is compliant with the CE and FCC standards, and its battery is compliant with the UL standard.

The mobeego adapter weighs 4 grams (0.14oz) and is 2.2-cm (0.87") long by 2.6-cm (1.02") wide. The charging unit ("the energy drink can") weighs 24 grams (0.85oz) and is 2.2-cm (0.87") long by 4-cm (1.57") wide. The outlet voltage is 5 volt, and the outlet current is 650 milliampere (mA). The products are packed for maximum efficiency to minimize storage space and transportation costs.

Teva invests \$30m in US Company Wave Life Sciences

Teva owns 9% of Wave Life Sciences, whose market cap is \$290 million.

Teva Pharmaceutical Industries Ltd. (NYSE: TEVA; TASE: TEVA) invested \$30 million in US biotechnology company Wave Life Sciences in the latter's Nasdaq IPO several weeks ago. Wave Life Sciences has a \$290 million market cap, following a 13.8% drop in its share price since the IPO. Teva bought 1.9 million shares at the \$16 IPO price, giving it 9% of Wave Life Sciences' share capital.

Wave Life Sciences stated following the offering that Teva had notified it of its intention to spend \$30 million on buying its shares, but that there was no guarantee that the purchase would be carried out.

Wave Life Sciences develops drugs based on its platform, and its collection of drugs in development includes products for the treatment of Huntington's disease, a medical segment in which Teva is active. Another US biotechnology company linked to Teva is CTI Biopharma, which develops oncological drugs for the purpose of reducing their toxicity. CTI Biopharma today announced that it had received \$10 million from Teva after meeting a milestone for the Trisenox drug. The agreement between CTI Biopharma and Teva resulted from Teva's acquisition of Cephalon, which previously acquired the rights to the drug from CTI Biopharma. According to CTI Biopharma's report, it is likely to receive a further \$70 million from Teva, subject to meeting future milestones.

Teva last week announced that the US Food and Drug Administration (FDA) advisory committee had recommended the approval of reslizumab, a biological drug for treating asthma in adults. Teva chief scientific officer

Dr. Michael Hayden said in response that Teva was very satisfied, and that the recommendation "brings us one step closer to potentially providing a new, targeted treatment option for a specific group of patients with inadequately controlled asthma." Merrill Lynch wrote in response at the end of last week that this was an upside concerning its model for Teva. Analyst Sumant Kulkarni wrote that he believes that other companies are developing a similar treatment, including GSK, AstraZeneca, and others.

Citi analyst Liav Abraham believes that sales of the drug will reach a peak of \$200 million. Even though this is not very large, however, she says that it is one more element in the positive sentiment concerning Teva's R&D capabilities and backlog of products. Abraham expects more information in 2016 about the original products being developed by Teva for treatment of Huntington's disease and dyskinesia.

Compensation in Russia

A judgment handed down by a Russian court requires Teva to pay \$5.9 million to Biotec Group, a local company, in compensation for violating an agreement between the two in 2010.

The company distributed Teva's products in Russia, and since 2010, the partnership has included the distribution of Copaxone, Teva's ethical drug for the treatment of multiple sclerosis. In a "Globes" interview a year ago, Biotec owner and chairman Boris Shpigel, an Israeli-Russian businessman, said, "Without any prior notice, Teva stopped supplying Copaxone through Biotec," and severed all connection with it. "A friendly hand was extended to Teva, which it bit," Shpigel said at the time. "We always gave Teva preference as an Israeli company, and we wanted to show that its products were better than those of its competitors in the US and Europe. We promoted many of Teva's products in the

market, in place of competing products."

Despite warnings from the Federal Antimonopoly Service of Russia, Teva has not resumed its supply of products to Biotec, and began marketing Copaxone in Russia through its subsidiary, Teva Russia. At the same time Biotec sued Teva for 408 million rubles, because Teva did not supply it with Copaxone for a government tender in late 2013. The Russian court awarded this amount to Biotec in its new judgment.

ReWalk shares soar after win with US military

The US Department of Veterans Affairs is providing ReWalk Personal exoskeleton systems for all qualifying veterans.

The share price of ReWalk Robotics Ltd. (RWLK) has doubled following the company's announcement that the US Department of Veterans Affairs (VA) had issued a national policy for the evaluation, training and procurement of ReWalk Personal exoskeleton systems for all qualifying veterans across the United States. The VA policy, which is exclusive to ReWalk Robotics exoskeleton systems, is the first national coverage policy in the United States for qualifying individuals who have suffered spinal cord injury.

"This historic policy will provide access to our life-changing technology for thousands of veterans across America," said ReWalk CEO Larry Jasinski. "We want all U.S. veterans with a spinal cord injury to know that they now have a path to securing their own ReWalk Personal exoskeleton system. The policy outlines a sound process to educate, train and importantly, to provide individual veterans with a ReWalk Personal device so that they may walk at home and in the community. We expect this landmark national policy will substantially improve the health and quality of life of many veterans in

the years ahead," Jasinski added

ReWalk Robotics is an innovative medical device company that is designing, developing and commercializing exoskeletons allowing wheelchair-bound individuals to stand and walk once again.

Our mission is to fundamentally change the Quality of Life for individuals with lower limb disability through the creation and development of market leading robotic technologies.

Current ReWalk designs are intended for people with paraplegia, a spinal cord injury resulting in complete or incomplete paralysis of the legs. The system uses patented motion sensing technology along with battery-powered motorized legs powering knee and hip movement which is controlled by proprietary on-board computers and software.

The ReWalk^a systems allows the user to sit, stand, walk, turn and has the ability to climb and descend stairs*. ReWalk users are able to independently operate the systems.

ReWalk received US FDA clearance to market in 2014 and is the only exoskeleton with US FDA clearance.

David's Sling Passes Test Successfully

The system will form a middle layer in Israel's missile defense, between Arrow and Iron Dome.

Israel's Ministry of Defense announced that it had carried out a successful test of "David's Sling" interception system from a test site in the south of Israel. The announcement states, "The success of the trial is the final milestone in the development of the system before it is delivered to the Israel Air Force and declared operational during 2016."

The test is the last in a series of tests to check

he capabilities and performance of the system (known in Hebrew as "Sharvit Kesamim" or "Magic Wand"), which will become part of the multi-layered defense array being developed by the Ministry of Defense. The ministry says that this system will make it possible to deal much more effectively with the threats to Israel, together with the existing components of the defense array against missiles.

Israel's Arrow 3 aces test by striking missile in space

The official statement stated, "In the trials, the system's capabilities were examined in several scenarios, simulating the threats that the system is planned to counter. Target missiles were fired that were detected by the MMR radar. The radar transferred the data to the fire management center, which ran the defense programs against them. David's Sling interceptors were launched successfully, executed all the stages of flight and destroyed the targets as planned."

The trials were carried out by the Homa Administration (also known as the Israel Missile Defense Organization) in Mafat (the Administration for the Development of Weapons and Technological Infrastructure), part of the Ministry of Defense, together with the Missile Defense Agency of the US Department of Defense. The system is produced by Rafael, the main contractor, Israel Aerospace Industries unit Elta, and Elbit Systems Ltd. (Nasdaq: ESLT; TASE: ESLT) unit Elisra.

"The David's Sling system is intended to provide an additional defensive layer against short- and medium-range missiles and rockets, particularly against precision threats, and also to add interception opportunities to the Arrow system, thus bolstering the defensive array against missile and rocket threats," the Ministry of Defense statement says.

The multi-layer defensive array includes the

Arrow 3 system that is due to become operational within a few years and that is designed to deal in space with ballistic missiles carrying nuclear or chemical warheads that might be launched from Iran. A lower layer is the Arrow 2 system, that will counter ballistic missiles within the atmosphere.

The third layer is the Iron Dome system, which deals with short-range rockets. The David's Sling system will operate between these layers "The system will carry out three missions: interception of long-range, precision rockets; back-up for the Arrow system in its lower layer; and interception of cruise missiles," explained Colonel Zvika Haimovich, commander of the IAF Aerial Defense Division. An initial unit of 85 personnel has been formed for the David's Sling battalion.

Elisra's Golden Almond system is the Lower Tier Ballistic Missile and Rocket Defense and the Fire Control Center (FCC) of the David's Sling system. It provides defense against ballistic targets and short-range missiles with David's Sling Weapon System and coordination with the Iron Dome system. The system calculates the course of the threat, builds an operational picture while identifying the type of target, provides assessments of the level of threat and coordinates the interception, thanks to its connection to intelligence and defense systems and to various sensors.

Cutting-Edge IDF Air Defense

"So David triumphed over the Philistine with a sling and a stone; without a sword in his hand he struck down the Philistine and killed him." (I Samuel 17:50)

David's Sling Weapons System Stunner Missile intercepts target during inaugural flight test.

David's Sling, a new air defense system developed under the auspices of the IDF, has passed its final round of tests and is slated for deployment in 2016, said the Defense Ministry.

The new system is designed to catch longer-range rockets that are not targeted by the Iron Dome, which shoots down short-range missiles, or by the Arrow, which intercepts ballistic missiles. David's Sling will have the ability to target rockets with ranges of 100 to 200 km (63 to 125 miles), aircraft, guided projectiles, low-flying cruise missiles, and drones.

The final test took place morning in a test field in southern Israel, and David's Sling passed all markers. The system will be delivered to the Israel Air Force (IAF) within the next four months. A core unit of the IAF, which is being trained on how to operate the system, took part in the recent held test.

"In trials, the system's capabilities were tested in a number of scenarios that simulate the threats it was designed to deal with," said officials at the Defense Ministry, and David's Sling destroyed the targets as intended.

Between the three systems, the IAF supports a network of interceptors guided by radar which can shoot down anything from shorter-range, low-flying rockets sent from Hezbollah and Hamas to longer-range ballistic Shehab and Scud missiles fired from Iran and Syria.

Support the Defenders of Israel Today!

Initially, the IDF will deploy four David's Sling batteries, sending two to the IAF in the first stage. The system is versatile in how it operates: David's Sling can be installed in a permanent location, like the Arrow defense system, or moved around to wherever it is needed, like the Iron Dome system. It can work together with the other two systems, or independently of them. According to the Defense Ministry, the system will be capable of identifying and intercepting missiles carrying warheads of up to hundreds of kilograms of explosives.

Investment in Israeli high-tech is unprecedented, and this will continue in 2016, says PwC Israel high-tech leader

"Israeli high-tech continues to provide investors with an impressive string of exits, with total deal value of more than \$5bn for the fifth straight year," said PwC Israel high-tech leader Rubi Suliman in his 2015 report. "The Israeli market seems to have grown desensitized to the news of yet another exit. But, that's quite unjustified, because this is actually quite amazing, on a global scale."

Israeli high-tech M&As rose to \$7.2bn in 2015 from \$5bn in 2014. However, IPO activity by Israeli companies slumped to \$3.5 billion in 2015 from 8 companies, from \$9.8bn for 18 IPOs in 2014. The 2015 figure was so high mainly due to effect of the \$5.3bn Mobileye IPO.

"The decline in Israeli IPOs is driven by several factors," observed Suliman. "First, the window of opportunity has been closing in the US and the UK. It is not completely closed just yet, but certainly narrowed in 2015. Second, cheap private money is a very significant contributor to the decrease in IPOs. Only recently we have witnessed companies that were unable to raise in IPOs at the same valuations as they did in private placements. When the public markets do not give the higher valuation, the number of IPOs is set to go down."

He added, "The increase in M&A deals is virtually fully explained by an increase in the number of deals, from 52 to 62. This increase is driven by continued appetite by large multinationals to use their massive cash holdings to acquire innovative future technologies as the best way to preserve value in the current environment of super-low returns.

Some of these funds are actually "locked" in tax structures that make the acquisition strategy seem even more attractive."

Suliman said, "Israeli hi-tech remains a focal point for international M&A deals. We have grown accustomed to the presence in Israel of global giants like Facebook, Apple, IBM, Qualcomm, Microsoft, Intel and more, which is actually far from being obvious. This year we have seen some new players in the local M&A market such as ARM, Amazon and Zynga. Israeli companies, such as Checkpoint, Mellanox, ironSource and Wix are also actively or potentially in on the action. The most active buyer by far is Microsoft with 5 acquisitions in 2015. In 2015, 56 buyers acquired 62 companies, versus 49 buyers that acquired 52 companies in 2014."

"While ranked top in terms of the number of delegations to Israel and interest they show, the Chinese are still on the sidelines and have not made significant acquisitions of Israeli hi-tech companies. However, the Chinese do make investments in Israeli high-tech, and have made quite a few acquisitions in other industries, so it's possible to assume that it is a matter of time before they get into the game."

Looking ahead to 2016, Suliman said, "The expected further hike of interest rates in the US and the belief that the economy is recovering out of "the seven lean years" since 2008, may impact the availability and alternative price of private money, and indirectly impact exits in Israel, given other investment opportunities. But, in fact, there are arguments that actually show why those changes can even intensify M&A activity in Israel. Be it as it may, such transitions take time to play out, and so, it is fair to assume that 2016 will also be buzzing with M&A activity. The amounts currently invested in Israeli high-tech are unprecedented, and it seems that this will bear fruits in the form of more innovative companies that will keep Israeli hi-tech rolling forward. The bottom line is that at this juncture, Israeli high-tech has all ingredients to continue producing larger than ever exits."

The seventh venture capital raising cycle that started early in 2015 - with 83North's \$204 million closing announcement - followed a successful sixth cycle between 2011 and 2014, concluding with a total of \$3.6 billion raised by 61 funds. The sixth cycle had been the strongest one since the early 2000s, ending with \$1.2 billion for vintage 2014 funds, the strongest vintage year in the past decade. The sixth cycle's most evident trend was the increase in the number of micro-venture capital funds, with 33 micro funds raising capital during this period, more than three times the number of such funds in the previous two cycles.

2015 vintage was marked by the emergence of six new growth funds, an outstanding number of funds dedicated to growth stage companies. While it may be a bit early to tell, it seems this might be a new trend for the seventh cycle. The average 2015 vintage fund currently stands at \$57 million and may increase to as much as \$82 million when targets are reached by the funds still raising further capital.

KPMG Somekh Chaikin Technology group partner Ofer Sela points to another interesting trend: "Over the past year we've seen a change in the LP mix in Israeli VC funds. While Israeli institutional investors have expanded their involvement then what it had been in the past, they still leave the arena mostly to investors from the US, and increasingly, from China. We can also see Israeli high net worth individuals going into VC investments. We hope this changing trend will get even more institutional investors involved in the industry, either as LPs in funds or co-investors in financing deals."

In 2015, four seasoned Israeli venture capital funds raised a cumulative 59% of the total fund capital, with more than \$100 million each. 83North stood out with its quick closing of \$204 million, a third fund for the team, but the first under the 83North rebranding of Greylock Israel.

Pontifax's fourth fund attracted a noticeable \$150 million, in addition to another \$40 million at first closing for the management company's AgTech fund. Pitango Growth, which is dedicated to growth stage companies, followed with a first closing of \$125 million out of a targeted \$250 million. Vintage's eighth fund closed \$125 million for late stage investments, after having closed its \$144 million seventh fund only a year earlier, of which 50 percent are allocated to investments in Israeli funds.

Sela added, "The local VC industry's viability is affirmed by two complementary trends. On the one hand we see veteran Israeli VC funds last longer than the average ten years, choosing to reinvest some of their returns, effectively increasing available capital. On the other hand, the VC funding cycles shorten as successful 2014 vintage VCs intend to start raising new funds during the last quarter of 2016, allowing them rapid cycles of first investments."

At the beginning of 2016, over \$2 billion is available for investments by Israeli venture capital funds. Of this amount, a little over \$500 million is earmarked for first investments. The remainder is reserved for follow-on investments. With nearly \$1 billion expected to be raised in 2016, IVC and KPMG believe that more than \$700 million may be available for first investments over the coming year.

Israelis Develop World's First Molecular Sensor That Can Scan Almost Anything

More than twenty years ago when Damian Goldring and Dror Sharon first became friends, they never imagined that they would help produce a technological breakthrough that looks as though it will dramatically impact the year of 2016.

The pair, who studied together at the Technion in Haifa, developed SCiO, the world's first molecular sensor that scans the chemical

makeup of materials and sends the information directly to a smartphone.

Powered by Consumer Physics, SciO, enables any person to ascertain the molecular and chemical design of almost any physical object or material including food, medicine, and more. By simply pointing the device at any given object, users will receive information ranging from the molecular design of living room furniture to the facts about our nutritional intake.

For example, during grocery shopping, SCiO can be used to detect the amount of sugar in a piece of fruit or check to see if an avocado is ripe or not. It can verify the level of fat content in cheese and exactly how many calories are consumed during dinner.

Goldring, the co-founder of the company, said in an interview with TPS that he and Sharon were inspired to develop this revolutionary device by the necessity to learn more about the physical world. "We started the company almost five years ago because we knew that people wanted to know more about their lives, like their health and food. We really don't know much about what we eat so we came up with spectrocity technology that analyses materials using optics. Google doesn't do the job because it is too generic and is not applicable to the actual object in front of you," Goldring said. While such technology has in fact been available for a few years, Goldring told TPS that its mass use had been hindered by its high costs, large machinery requirements and its consequences restrictions to laboratories.

The company, based in Hod Hasharon, developed its first and second prototype at the end of 2013 and 2014 respectively after bagging an impressive \$3 million from over 13,000 backers during a successful kick-start campaign.

Since April 2015, thousands of such devices have been delivered to developers and backers

in over 120 countries. However, according to Goldring, regular consumers can expect in the early months of 2016 to be able to download an application onto their smartphones. "This way it is not just developers, researchers and companies who can check things. Regular people will be able to check food and medicine and simply explore the world before their eyes."

He further elaborated on why utilizing the application will require owning the device itself. "The device will communicate with the phone and the phone will communicate with our service center which has all the information technology. That information will then be translated back to the user," he told TPS.

Goldring, who moved to Israel from Argentina as a young boy, holds a PhD from Tel Aviv University and specializes in electro-optics while Sharon, a graduate from the Massachusetts Institute of Technology, manages the business aspect of the company. Together, they have assembled a diverse professional staff consisting of 65 science and management experts set on improving the quality of everyday life for people.

Teva acquires Gecko Health Innovations

Gecko has developed a cloud-based solution to simplify chronic respiratory disease management through remote monitoring.

Teva Pharmaceutical Industries Ltd. (NYSE: TEVA; TASE: TEVA) has entered into a definitive agreement to acquire Gecko Health Innovations Inc. Based in Cambridge, Massachusetts, Gecko is a privately-held company, which develops software and product solutions to aid in compliance and adherence improvement in the management of respiratory diseases. No financial details about the acquisition were disclosed.

Gecko CEO and founder Engelhard said,

"During the last three years, we have designed and built a system to support respiratory disease management by intuitively connecting caregivers, patients, and families. In founding Gecko Health Innovations, our vision was to connect chronic medication management into one platform, leveraging this information to support and empower patients by partnering with leading players in the healthcare and pharmaceutical industries. We are very excited to realize this vision as it aligns to Teva's focus on innovative patient solutions."

2015's crop of Israeli high-tech exits worth \$9b

VC-backed exits were the highest in ten years. IVC's Koby Simana: VC funds are becoming more patient.

There were 104 exits by Israeli high-tech companies in 2015, and these generated \$9.02 billion in proceeds, according to figures released today from a survey by IVC Research Center in conjunction with the Meitar Liquornik Geva Leshem Tal law firm.

The number of exits was 10% down in comparison with 2014, but proceeds were up 16% to the highest level in the last three years. The number of exits in 2015 is in line with the 10-year average of 100 deals. The average exit deal was \$87 million in 2015, up from the \$62 million 10-year average.

The top three exits in 2015, each above \$500 million, jointly accounted for 30% of the total exit proceeds. The \$1.25 billion acquisition of Fundtech by D+H, an international fintech company, alone accounted for almost 14% of the total exit proceeds in 2015. The acquisition of Valtech by HeartWare followed, with \$929 million, and Ex Libris's acquisition by ProQuest accounted for \$500 million. VC-backed exit deals broke records in 2015, when 52 VC-backed deals brought in a total

of \$4.98 billion - the highest in 10 years, bypassing even 2013's \$4.04 billion, which included Waze's \$1.2 billion acquisition by Google. The record is a result of the combination of a large number of deals and the size of the average VC-backed exit. At 52 exits, the number is second only to the 57 VC-backed deals performed in 2006, and is 24% above the 10-year average of 42 VC-backed exits per year. The size of the average VC-backed deal reached nearly \$96 million, 47% above the 10-year average and second only to the record set in 2013 - of \$106 million.

IVC Research Center CEO Koby Simana said by way of explanation of the exceptional achievement, "The increase in the size of the average VC-backed exit has a lot to do with the patience and perseverance with which VC funds have been managing their Israeli portfolios lately. The VCs, many of whom have been successfully raising new funds in the past two years, have enough breathing room to patiently wait for portfolio companies to realize their full potential. "One of the things our analysis revealed was that the average time to exit in VC-backed deals keeps climbing, reaching 9.5 years in 2015 - narrowly within the VC model timeline. The funds' willingness to sit and wait for a portfolio company to mature enough for a substantial exit, seems to pay off, as the average deal and return on equity are climbing as well."

Israeli VC 2015 fund raising up to \$1.5b

IPO exits slowed down in 2015, following an exceptional 2014. Eight Israeli high-tech IPOs accounted for \$609 million, a mere 7% of the total exit proceeds in 2015, compared to 2014's outstanding 27%. The number of deals was lower than expected, as many companies shelved their IPO plans after worldwide IPO markets in general, and Nasdaq in particular, no longer seemed to offer favorable conditions for initial public offerings.

Still, the top three IPOs of 2015 all exceeded \$100 million in proceeds and accounted for 70% of the amount raised in IPOs during 2015. The top three IPOs were performed on Nasdaq. They were by Novocure (\$165 million) and Chiasma (\$117 million) in life sciences and SolarEdge (\$145 million) in the cleantech sector.

On prospects for IPOs by Israeli companies, Meitar Liquornik Geva Leshem Tal partner Dan Shamgar said, "Throughout 2015, the American capital market was not particularly receptive for IPOs, therefore Nasdaq IPOs were chosen as an alternative only by a small number of companies. Looking ahead, it seems the IPO market will remain mostly closed for most companies, at least in the first few months of 2016. The M&A market however will remain active. On the acquirers' side, along with seasoned acquirers such as Microsoft we see a trend of new buyers joining the exit market in Israel. In the past year, such new players included conglomerates such as Infosys and Amazon, and we believe additional strategic players will perform acquisitions in order to establish their presence in Israel."

In M&A deals, the trend is towards larger deals, with the number of deals below \$50 million dropping while the number of larger deals increased. The size of the average M&A deal in all groups increased compared to previous years, further demonstrating that the increase in average deal size is not a statistical oddity, nor a result of a few extremely large deals - it reflects a real trend for M&A activity. Israeli high-tech companies were also on the acquiring side of 30% percent of the M&As in 2015.

Twenty-four Israeli or Israel-related high-tech companies chose to expand by directing some of their M&A funds locally, acquiring 26 Israeli high-tech companies, in so-called "two-sided Israeli high-tech deals", for a total of \$1.18 billion.

While the accepted terminology for exits includes the IPOs and strategic M&As, the report editors suggest another form of deal-making can provide investors with returns, while the company remains independent. Specifically, buyouts involving private equity investors provide an excellent opportunity for the existing shareholders to profitably liquidate some portfolio holdings. In total, seven Israeli high-tech buyouts were performed in 2015, totaling \$1.18 billion, somewhat below the \$1.74 billion generated by such deals in 2014.



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