

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES  
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## Heading for a Banner Year for Hi-Tech

Private equity investment in Israel was \$3.5 billion last year, up from \$3.1 billion in 2015.

In 2016 Israeli and private equity funds invested a record \$3.5 billion in 68 deals, up 14% from just under the \$3.1 billion in 2015 and 29% up from \$2.73 billion in 2014. The number of deals however, dropped 17% in 2016 down from 103 deals in 2015, and 17% below the five year average of 82 private equity deals. This year, from all indications, is heading for a banner year.

The four largest deals closed in 2016 were all buyouts above \$100 million each, accounting for \$2.54 billion or 72% of proceeds.

The buyout of Keter Plastics by BC Partners \$1.4 billion - the largest private equity deal recorded in five years - was followed by the \$643 million buyout of Xura by Siris Capital. In third place was the \$400 million buyout of Sintec Media by Francisco Partners, while FIMI carried out a \$100 million buyout of G4S Israel.

In line with developments in the US, Israel experienced a substantial decrease in the number of private equity investment deals during 2016. This is in line with the decline in the US private equity market. However, the 2016 annual private equity deal amount - the highest ever recorded - was encouraging, as was the stable activity of foreign PE funds with another annual record. Another strength sign is the continued activity of the private

equity technology sector. We therefore believe it is too early to conclude that we are witnessing the beginning of a slowdown in the Israeli private equity industry. Positive signs are being seen in the continued fundraising by venture capital funds focusing on the Israeli high-tech industry and the increasing number of growth opportunities, as well as fundraising by Israeli PE funds and foreign PE funds expressing interest in Israel.

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### In this issue

- Blueeconomy Center has raised \$150 million
  - Wix buys US art community DeviantArt for \$36 million
- Why Israel has the most technologically advanced military on Earth
- Apple buys Israel's facial recognition firm RealFace – report
  - China's Midea buys Servotronics
- Palo Alto Networks buys Israeli co LightCyber for \$130m
- Israeli cyber security co LightCyber raises \$20m
- Tech Investment in Israel Outstrips All of Europe
  - Meet ELLI•Q
- China's SAIC to open Israel development center
  - Bet Shemesh Engines wins \$37m ITP deal
  - Investors bet on Israel tech stock windfall under Trump
  - X-Ray Vision: Israeli Researcher Sees Through Surfaces Using A Smartphone
  - Danaher buys Israeli co AVT for \$100m

In the fourth quarter of 2016, Israeli private equity deal-making decreased, as 16 private equity deals accounted for \$412 million, 46% below the \$757 million invested in 25 deals in the fourth quarter of 2015, and a 74% drop from the \$1.6 billion invested in 14 deals in the previous quarter. Both the amount and number of deals were below the five-year average, a decrease of 38% and 24%, respectively.

Technology deals kept a strong momentum in PE deals, with 44 transactions performed in 2016, the same as the five-year average, accounting for 65% of the deals, and generating \$1.61 billion, or 46%, of capital volume. Two of the top buyouts mentioned - the Xura and Sintec Media deals, contributed.

### Blueeconomy Center has raised \$150 million

The fund provides Israeli companies with direct access to investments from the Chinese government,

The fund raised the money from the government and public funds for investment in maritime and environmental technology in Israel.

Managed by the CEO Shalom Daskal, Yuval Rabin, son of the late Prime Minister Yitzhak Rabin, and Jacob Kaplan, the fund provides Israeli companies with direct access to investments by the Chinese government. It completed its first financing round and is considering investments in four companies.

Technologies under consideration include wind, wave, and solar energy. Also under consideration are marine food, green and blue algae based materials, drug and cosmetics.

### Wix buys US art community DeviantArt for \$36 million

The acquisition provides the Israeli company

with opportunities for product development, brand recognition and increased traffic.

Israeli DIY website building company Wix (Nasdaq:Wix) has announced that it has acquired Los Angeles based DeviantArt, one of the world's largest online communities dedicated to artists, art enthusiasts and designers. The acquisition represents inherent opportunities in key growth areas for Wix including product development, brand recognition and increased traffic.

Wix has acquired 100% of DeviantArt's capital stock in exchange for \$36 million in cash, including \$3 million of assumed liabilities. As of December 31 2016, Wix had \$172 million in cash on its balance sheet. The transaction closed on February 22, 2017, and will be recorded in Wix's first quarter 2017 financial statements.

Wix will provide DeviantArt users easy access to powerful tools specifically designed to help emerging artists create and showcase their creativity online and build their brands. At the same time, Wix creatives and designers will

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have access to DeviantArt's thriving community of tens of millions of visual artists. DeviantArt is consistently one of the most visited websites worldwide and has grown organically for over a decade with virtually no investment in marketing or advertising. Currently, the community boasts over 325 million individual pieces of original art and more than 40 million registered members.

Wix and DeviantArt share a vision to provide designers and artists of all types a platform on which they can create, manage and showcase their work online, grow their audience and build their own global brands. Wix will provide technology and marketing expertise to the DeviantArt universe enabling its users to further their reach and increase engagement, both online and on mobile.

Wix cofounder and CEO Avishai Abrahami said, "Over its 16-year history, DeviantArt has built an impressive online community that is incredibly loyal, highly engaged and regularly produces stunning art and design. The DeviantArt community is talented and robust and hungry for additional product expertise. We understand their passion, share their creative vision and are excited to offer the power of the Wix platform to their millions of artists."

DeviantArt cofounder and CEO Angelo Sotira said, "We founded DeviantArt to enable the creative spirit in everyone, creating a platform dedicated to the vision and talent of the community which could be shared with the world. This combined effort with Wix creates new opportunities for innovation never before seen on the Internet and an amazing super-charged offering to our community members. We look forward to being part of the Wix team, and we are humbled by the respect and love they have shown to our community." As part of this acquisition, Sotira will join the Wix management team. DeviantArt will continue to foster its community from its headquarters in Los Angeles and all of its employees will join Wix.

### Why Israel has the most technologically advanced military on Earth

In 1950, just two years after the state of Israel was founded, the country's first commercial delegation set off for South America.

Israel desperately needed trading partners. Unlike its Arab adversaries, Israel did not have natural resources to fund its economy. There was no oil or minerals. Nothing.

The delegation held a couple of meetings but was mostly met with laughs. The Israelis were trying to sell oranges, kerosene stove tops and fake teeth. For countries like Argentina, which grew its own oranges and was connected to the electrical grid, the products were pretty useless.

It's hard to imagine this is what Israeli exports looked like a mere 67 years ago. Today, Israel is a high-tech superpower and one of the world's top weapons exporters with approximately \$6.5 billion in annual arms sales.

Since 1985, for example, Israel is the world's largest exporter of drones, responsible for about 60 percent of the global market, trailed by the US, whose market share is under 25 percent. Its customers are everywhere — Russia, South Korea, Australia, France, Germany and Brazil.

In 2010, five NATO countries were flying Israeli drones in Afghanistan. How did this happen? How did Israel, a country not yet even 70 years old, become a superpower with one of the most technologically advanced militaries in the world that is changing the way modern wars are fought?

The answer is a combination of a number of national characteristics unique to Israel. Despite Israel's small size, about 4.5 percent of its GDP is spent on research and development, almost twice the Organization

for Economic Cooperation and Development average. Of that amount, about 30 percent goes to products of a military nature. By comparison, only 2 percent of German R&D and 17 percent of the US R&D is for the military.

Another major contribution is the culture of innovation and creativity in Israel. Israelis are more willing to take risks than other nations. They get this from their compulsory military service during which they are tasked, at a young age, to carry out missions often with deadly consequences.

Lastly, Israel has been in a perpetual state of conflict since its inception, fighting a war almost every decade. This reality, of having your back up against the wall, sharpens the mind. It forces Israelis to be creative and come up with innovative ways and weapons to survive.

The Guardian is a part of a new category of robotic weapons known as Unmanned Ground Vehicles or UGVs. Israel is the first country in the world using these robots to replace soldiers on missions like border patrols.

Already, Guardian UGVs are deployed along Israel's border with Syria in the north and the Gaza Strip in the south.

The Guardian is based on a Tomcar dune-buggy-like vehicle and equipped with a range of sensors, cameras and weapons. It can be driven by a soldier sitting in a command center miles away or receive a pre-designated route for its patrol, making it completely autonomous.

The increasing use of robots by the Israel Defense Forces is part of a larger strategy to minimize risk to soldiers when possible. In addition, soldiers require breaks, food and water. All a Guardian needs is a full tank of gas. Other UGVs in use by the IDF include the Segev, which is based on a Ford F-350 pickup truck.

Facing terrorists who use tunnels to infiltrate

into Israel from places like the Gaza Strip, Israel is also relying on UGVs like robotic snakes to slither their way into underground passageways and enemy headquarters. The robots will then map out the structures, giving soldiers an accurate picture of a battle area before the place is stormed.

The same is happening at sea. Israeli defense contractor Rafael has developed an unmanned patrol ship called Protector which is being used by Israel to protect its strategic ports and patrol the country's long Mediterranean coastline.

### The Arrow anti-missile program

In 2000, the Israeli air force received its first operational Arrow missile battery, making Israel the first country in the world with an operational system that could shoot down incoming enemy missiles.

The idea to create the Arrow was born in the mid-1980s after President Ronald Reagan floated his Star Wars plan and asked America's allies to partner in developing systems that could protect the country from Soviet nuclear missiles.

The Arrow was a revolutionary idea. Due to Israel's small size and lack of territory, all ballistic missiles deployed in the region — Syria, Iraq and Iran — can reach anywhere within the country and pose a strategic and possibly even existential threat. Israel, the developers argued, needed a system that could shoot down enemy missiles over neighboring countries and provide overall protection for the tiny Jewish state.

The program had its ups and downs but got a huge boost in funding after the First Gulf War in 1991, when Saddam Hussein fired 39 Scuds into Israel, paralyzing the country and forcing millions of Israelis into bomb shelters with their gas masks.

The Arrow was just the beginning. Today, Israel has the Arrow, which is partially funded by the United States, to intercept long-range ballistic missiles, David's Sling to intercept medium-range rockets and cruise missiles as well as the combat-proven Iron Dome, which has intercepted hundreds of Katyusha rockets fired from the Gaza Strip in recent years.

Israel is the only country in the world that has used missile defense systems in times of war. These systems do more than just save lives. They also give the country's leadership "diplomatic maneuverability," the opportunity to think and strategize before retaliating against rocket attacks.

While other countries have also invested in missile defense, none has created a multi-tier architecture like Israel.

### Mini spy satellites

In 1988, Israel launched its first spy satellite into space, gaining membership in the exclusive club of just eight nations with independent satellite-launching capabilities.

From the beginning, there were those who doubted Israel was capable of developing, building and launching its own satellite, but in the nearly 30 years since that day, it has grown into a satellite superpower, now operating eight different spy satellites in space.

This is a critical capability considering the threats Israel faces from countries like Iran, which it still suspects is planning one day to build a nuclear weapon.

Israel has shied away from building big satellites and instead designs what are known as "mini satellites," which weigh about 300 kilograms (661 pounds) in comparison to America's 25-ton satellites.

Israel's spy satellites are split into two categories. Most of Israel's satellites come with advanced high-resolution cameras like the Ofek-9, launched in 2010, which can discern objects as small as 50 centimeters (20 inches) from hundreds of miles away.

Israel's other category of satellites are known as the TecSar. These satellites use a synthetic aperture sensor, basically a radar system that can create high-resolution images at almost the same quality as a regular camera.

The advantage this technology provides Israel is tremendous. A camera cannot see through clouds or fog, but radars can work in all weather conditions and can even see through camouflage nets. What this means is that Israel has the ability to track its enemies and gather intelligence on them at all times of the day and through rain, fog or clouds.

Israel's success in developing state-of-the-art satellites has caught the world's attention. In 2005, the French entered a strategic partnership with an Israeli company to develop a satellite, and in 2012, Italy ordered a reconnaissance satellite, paying \$182 million. Singapore and India have also reportedly purchased Israeli satellites over the years.

### Drones

It is referred to in Israel as the "drone that can reach Iran." The Heron TP is Israel's largest unmanned aerial vehicle with an 85-foot wingspan, the same as a Boeing 737 airliner. It can stay airborne for 24 hours and carry a 1-ton payload.

While Israel doesn't openly admit it, the Heron TP is believed to also be capable of launching air-to-surface missiles.

Israel was the first country in the world to operate drones in combat operations. Its first use of drones was in 1969, when the Israel

Defense Forces flew toy airplanes with cameras glued to their bellies along the Suez Canal to spy on Egypt. In 1982, it flew its first combat drone, called Scout, in Lebanon, where they played a key role in locating and neutralizing Syrian anti-aircraft missile systems.

That operation caught the world's attention, and in 1986, Israel supplied the US Navy with its first drone, known as the Pioneer. A few years later, one Pioneer made history when it flew over a group of Iraqi soldiers during the First Gulf War. The soldiers saw the aircraft, took off their white undershirts and waved them in the air. It was the first time in history that a military unit had surrendered to a robot.

Israel's drones have revolutionized the modern battlefield. They cost a fraction of a manned fighter jet — some as little as a few million dollars — and participate today in every single operation conducted by the IDF.

Drones give soldiers the ability to make calculated decisions before invading territory or storming enemy compounds.

Before Israel bombs a building in the Gaza Strip, for example, it always has a drone in the air to ensure that civilians are not inside. They also reportedly fly almost daily over Lebanon, tracking fighters for Hezbollah, which is believed to have about 130,000 missiles capable of striking Israel.

### The top-secret tank

To this day, the Merkava tank is one of Israel's most top-secret projects. It is said to be one of the most lethal and protected tanks in the world, and its construction started out of pure necessity — the United Kingdom and other countries refused to sell Israel tanks. So in the 1970s, it started to build its own.

The newest model — known as the Merkava Mk-4 — is the most impressive. It can reach

speeds of 40 mph and comes with a new modular armor kit, meaning that the tank can be fitted with the armor it needs based on the specific mission it is heading into.

An area, for example, known to be full of anti-tank missile squads requires heavy armor, while an operation without the threat of anti-tank missiles means less. This also allows tank crews to replace damaged pieces of armor on the battlefield without having to bring the full tank back to a repair shop inside Israel.

In 2012, the Merkava underwent its biggest change yet when a new system — called Trophy — was installed on the tank. Trophy is an active-protection system, basically a personal missile defense system for an individual tank.

Trophy uses a miniature radar to detect incoming anti-tank missiles and then fires a cloud of countermeasures — basically metal pellets — to intercept them. The radar also interfaces with the tank's battle management system. This means that once a missile launch is detected, the coordinates of the enemy squad that fired the missile are immediately obtained, allowing the tank to retaliate quickly and accurately.

### Apple buys Israel's facial recognition firm RealFace – report

US giant acquires Tel Aviv-based Israeli cybertechnology startup for a couple of million dollars.

Apple Inc. has acquired Israel's Realface, a cybertechnology startup whose facial recognition technology can be used to authenticate users. This is Apple's fourth acquisition in Israel and the deal is estimated to be worth a couple of million of dollars.

Realface, set up in 2014 by Adi Eckhouse Barzilai and Aviv Mader, has developed a

facial recognition software that offers users a smart biometric login, aiming to make passwords redundant when accessing mobile devices or PCs.

The Tel Aviv-based firm had raised \$1 million prior to the acquisition and employs 10 people. The company has sales in China, Israel, Europe, and the US. RealFace's first product, the Pickeez app, created a new way to enjoy photos, with its recognition software automatically choosing the user's best photos from every platform they're on.

Besides RealFace, Apple has acquired three other Israeli companies to date. In 2011 it bought flash memory maker Anobit for a reported \$400 million. In November 2013 it acquired 3D sensor company PrimeSense for a reported \$345 million, and in 2015 it bought LinX for an estimated 20 million.

### China's Midea buys Servotronix

The Chinese robotics and electronics giant has acquired control of the Petah Tikva based automation solutions developer, at a company value of \$170 million.

Chinese electronics giant Midea Group has acquired control of Israeli company Servotronix at a company value of \$170 million, the Petah Tikva based company founded by CEO Dr. Ilan Cohen reported.

Founded in 1987, Servotronix develops automation solutions focused on motion control for a diverse range of industries including robotics, printing, textiles, medical equipment, renewable energy, CNC and machine tools, food and beverages, and electronics. Servotronix operates worldwide and has subsidiaries in Germany and China.

Midea, which has a company value of \$30 billion and is listed on the Shenzhen stock exchange, focuses on household goods,

air-conditioning, robotics and automation.

Servotronix reports that its development center in Petah Tikva will continue to operate after the acquisition, while deepening its strategic cooperation with Midea.

Dr. Ilan Cohen said: "This alliance will provide Servotronix with significant leverage for our global operations and put Servotronix in a leadership position in the field of robotics, control and automation, with China being a major market in this field. We are proud that Midea has recognized our success, and we are confident that this strategic alliance will benefit the company, our customers and our employees. Servotronix will continue its operations with even more enthusiasm and strength."

Midea chairman and CEO Paul Fang said, "This strategic alliance represents another milestone of Midea's expansion in industrial automation and intelligent manufacturing. We believe that Servotronix' technological leadership and innovation in motion control will generate significant synergies with Midea in terms of value chain integration and new market development. By leveraging each other's complementary capabilities and resources, the two companies will join forces to develop exciting new products and explore growth opportunities going forward."

### Palo Alto Networks buys Israeli co LightCyber for \$130m

Ramat Gan based LightCyber has been developing automated behavioral analytics capabilities, using sophisticated machine learning.

US enterprise security company Palo Alto Networks (Nasdaq: PANW) has acquired Israeli cyber security company LightCyber for \$130 million - \$105 million cash and sources inform "Globes," an additional \$25 million in shares,

LightCyber has been developing automated behavioral analytics capabilities, using sophisticated machine learning to quickly, efficiently and accurately identify attacks based on identifying behavioral anomalies inside the network.

LightCyber's investors include Access Industries, through its Israeli technology investments entity, Claltech, and network security luminary Shlomo Kramer, who joined the LightCyber board of directors last year, Battery Ventures, Glilot Capital Partners and Amplify Partners. With offices in Ramat Gan and the US, LightCyber was founded in 2012 by CPO Giora Engel and CTO Michael Mumcuglu. The company provides Behavioral Attack Detection solutions and its products have been deployed by top-tier customers around the world in industries including the financial, legal, telecom, government, media and technology sectors.

### Israeli cyber security co LightCyber raises \$20m

LightCyber has raised \$32 million including \$20 million last June, meaning that investors are seeing returns of at least quadruple their investment. Early investor Glilot Capital will see \$27 million for its \$4 million investment, while Shlomo Kramer with a 12% stake will see \$16 million.

The company has annual revenue of \$10 million. This is Palo Alto Networks second Israeli acquisition after buying information security company Cyvera in 2014 for \$200 million.

Palo Alto Networks says it will continue to offer the LightCyber products and support existing customer implementations while it engineers the technology into the Palo Alto Networks Next-Generation Security Platform by the end of the calendar year. Bringing behavioral analytics to the platform will enhance its

automated threat prevention capabilities and the ability for customer organizations to prevent cyber breaches throughout the entire attack life cycle.

Palo Alto Networks chairman and CEO Mark McLaughlin said, "The LightCyber team's vision to bring automation and machine learning to bear in addressing the very difficult task of identifying otherwise undetected and often very sophisticated attacks inside the network is well-aligned with our platform approach. This technology will complement the existing automated threat prevention capabilities of our platform to help organizations not only improve but also scale their security protections to prevent cyber breaches."

### Tech Investment in Israel Outstrips All of Europe

If you ask Jon Medved, CEO of the Jerusalem-based Our Crowd venture capital group, the "issue" of Israeli communities in Judea and Samaria is no more relevant to the international business community than they would be if they were located on the moon.

"Are you kidding?" he laughs. "Listen to me: It is a non-issue. No one even knows how to spell it. It may be a big issue for diplomats and the United Nations, but it is completely orthogonal to what we are doing. It's like a different planet."

Speaking to TPS about Our Crowd's equity crowdfunding platform and the state of technology investment in Israel, Medved said that since opening for business in 2013 the company has raised \$400 million, invested in 110 companies and had had 13 successful "exits". Even more significantly, he said the scope and breadth of international interest in and support for the local technology sector means the current numbers will grow exponentially in the coming years.



“Israel is hotter than ever, growing at a rapid pace. \$4.8 billion was invested in Israeli technology companies last year, of which 85 percent came from abroad.

“Compare that to Europe – \$13.6 billion last year for their 700 million people, compared to our 8.5 million people. So we’re about 30-to-1 over them in the tech sector. It’s not an exaggeration to say that people simply can’t get enough of it,” he said.

Both in order to ramp up the level of investment in Israeli tech companies and to facilitate investment opportunities for investors around the world, Our Crowd has created an investment platform to match local start-ups with small-to-medium investors by adapting the crowdfunding model to the hi-tech sector.

Traditionally, start-up investing has been limited to a minuscule number of investors, mainly because the entry fees to the sector limit the playing field to the super rich. Venture capital funds routinely demand a \$1 million opening deposit, and can often go as high as \$4-5 million. But individual investments into particular companies are often impractical, especially when talking about overseas companies. Legal and accounting requirements differ from country to country, and watching over a large-scale investment requires both time and expertise.

Those difficulties have not dimmed interest in Israeli technologies from the international community, however. Business and technology delegations have boomed in recent years, with dozens “tech tours” from every continent expected to visit technology hubs around the country this year, including from countries that do not maintain diplomatic relations with Israel.

“Take our Global Investors Summit,” Jon Medved told TPS. “At our first Summit in 2014 we had 1000 participants. It grew to 3,000 by the second one and 6,000 last week. We had people from 82 countries – Poland, Greece,

Macedonia, Finland, all closing deals with hundreds of multinationals and learning about locally-created technologies. We even had one Muslim CEO from Iraq!

“For instance, we had the CEO of Zoom Car, sort of like an ‘Uber’ for rental cars in India. He decided to attend last year’s Summit on a whim and wound up signing a deal with Mobile Eye. Last week, he told me that the technology has reduced accidents for his fleet by 80 percent,” Medved said.

“There is no question this is an international conference,” added Nitzan Adler, Director of Community Projects & Operations at Siftech, a hi-tech accelerator in Jerusalem. “Things run like clockwork and I’ve met people here from around the technology industry, both from Israel and abroad. It’s a sign of a bright present and future.”

### Meet ELLI•Q

ELLI•Q is an active aging companion that keeps older adults active and engaged. ELLI•Q seamlessly enables older adults to use a vast array of technologies, including video chats, online games and social media to connect with families and friends and overcome the complexity of the digital world.

ELLI•Q inspires participation in activities by proactively suggesting and instantly connecting older adults to digital content such as TED talks, music or audiobooks; recommending activities in the physical world like taking a walk after watching television for a prolonged period of time, keeping appointments and taking medications on time; and connecting with family through technology like chat-bots such as Facebook Messenger.

Using “Natural Communication” such as body language that conveys emotion, speech interface, sounds, lights and images to express herself, ELLI•Q is emotive, autonomous, and

easily understood. Using machine learning, she learns the preferences, behaviour and personality of her owner, and proactively recommends activities based on its learning and based on recommendations by family. ELLI•Q also has the ability to monitor wellness and the environment in the home.

### China's SAIC to open Israel development center

Chinese car manufacturing giant SAIC is founding an R&D center in Israel for advanced auto technologies.

Shanghai Automotive Industry Corporation (SAIC) will found an R&D center in Israel for advanced auto technologies, the company announced in China. The company said that the center would focus on development and venture capital investment in "electrical propulsion, data networks, car sharing, and smart automated propulsion." The center is part of a global plan in which the company is expanding its R&D worldwide. It recently opened a similar center in Silicon Valley.

The company's advance team is already in Israel, and that the company's branch in Israel is slated to expand to 50 employees. It is believed that SAIC's business in Israel will be located in the new management center of the Lubinski group in Meuyan Sorek. Lubinski has been the official importer for SAIC in recent years, and has sold several thousand units of the brand to date.

SAIC, a Fortune 100 company that is one of the four largest Chinese auto manufacturers, is a Chinese government company selling nearly five million vehicles a year.

The auto industry believes that this is only the spearhead of R&D and venture capital investment by Chinese auto manufacturers in Israeli auto-tech. Early this month, a new auto-tech entrepreneurship and innovation

center owned by Chinese company Geely, with Volvo as a partner, was inaugurated in Israel. "Globes" previously reported that Qoros, jointly owned by Kenon Holdings Ltd (TASE:KEN: NYSE: KEN-WI) and Chinese auto manufacturer Chery, was planning to establish an R&D center for smart electric vehicles.

Under its five-year plan, the Chinese government is currently pushing all Chinese auto manufacturers to achieve technological breakthroughs in alternative environmentally friendly propulsion and smart cars as a condition for receiving substantial governmental incentives. The auto industry believes that the Chinese entry into the highly competitive and crowded field of global venture capital investment in smart cars will substantially boost the values of the current and future players in this segment.

In its announcement, SAIC said that Israel was a country with a deep historical and cultural background and a strong atmosphere of innovation and entrepreneurship. The company noted that the Israel was among the world's leading countries in its per capita number of scientists and engineers, and that the contribution of high-tech companies to Israel's GDP put it among the world's leaders in this aspect. SAIC said that Israeli government policy was to encourage technological activity with support from institutions, investment funds, and other means in all areas of science. According to SAIC, many leading global echnology companies, together with large auto manufacturers, are developing breakthrough technologies in Israel.

SAIC is currently in the middle of an "arms race" involving the five largest auto groups in China, including Dongfeng, Changan, FAW Group, and Guangzhou Automobile Industry Group, to obtain Western core technologies that will enable the Chinese to create a spearhead in global export markets. This task

has not yet been accomplished. As part of this process, Chinese auto manufacturers have invested billions of dollars in buying Western auto companies and shares in them. In addition, major Chinese technology companies, including ZTE, are now trying to develop advanced components for smart cars, and are consider possible investments and acquisitions.

### Bet Shemesh Engines wins \$37m ITP deal

Bet Shemesh Engines Ltd. (TASE: BSEN) has notified the TASE of the extension of its long-term agreements signed in early 2016 with Spanish company Industria de Turbo Propulsores (ITP Group). The extension is projected to add \$37 million to Bet Shemesh Engines' revenue in 2017-2029.

The extension brings Bet Shemesh Engines' revenue from the agreement to over \$100 million. It includes six engine parts that the company will supply to ITP, which is now owned by engine giant Rolls Royce, and which is participating in a General Electric engine upgrade project.

Bet Shemesh Engines said, "Some of the work in this project will be carried out by the company's subsidiary in Serbia, which is likely to increase Bet Shemesh Engines' profit margin on this strategic project."

Bet Shemesh Engines concluded a \$40 million long-term framework agreement with ITP in January 2016, with supply scheduled for 2016-2026. It was stated at the time that the agreement did not set a detailed supply timetable, and that specific orders were expected to arrive during the period of the agreement.

Eight months later, Bet Shemesh Engines announced the first extension of the agreement, amounting to an additional \$29 million over 10 years. The company said that ITP was the world's ninth largest airplane engine company,

with 3,000 employees. Rolls Royce acquired control of ITP in 2016.

### Investors bet on Israel tech stock windfall under Trump

Investors are betting heavily that Israeli defense and cyber-security firms will reap a windfall from President Donald Trump's big U.S. spending plans, although likely benefits for the wider economy remain like the man himself - hard to predict.

Israeli technology companies are likewise well placed to pick up contracts on other planned presidential projects, such as a hugely expensive wall along the U.S. border with Mexico.

Economists, however, have yet to factor any positive "Trump effect" into their Israeli growth forecasts and analysts say some of his ideas, such as moving the U.S. embassy to Jerusalem, could backfire with negative security and economic consequences.

After a month in office, some of Trump's Twitter commentary has caused bewilderment in a number of foreign capitals. But in Israel, hopes are high for stronger commercial and strategic ties with the United States, and that warmer political relations will encourage foreign investors.

Companies tipped to gain include defense contractor Elbit Systems, Magal Security Systems and Check Point Software Technologies. All have seen their share prices soar since Trump's election victory on Nov. 8.

Those, and many other Israeli companies, either have U.S. subsidiaries or are incorporated in the United States - a useful hedge should Trump stick to his "America first" promise of giving priority to domestic industry.

Israeli Prime Minister Benjamin Netanyahu met

Trump in Washington last week, building on expectations of a friendlier relationship with the Republican president after a fractious eight years dealing with Democrat Barack Obama.

“In the world of investing and economics, perceptions matter and I believe investors will notice,” said Steven Schoenfeld, founder of BlueStar Indexes, which develops indexes and exchange traded-funds that track Israeli stocks.

BlueStar’s Israeli technology ETF has gained 13 percent on the U.S. Nasdaq market since the election. So far, the effect on the wider market has been less remarkable. While Tel Aviv’s broad index is up 6.1 percent, it has underperformed the MSCI World index for developed countries, which has risen about 8 percent in the same period.

The United States is Israel’s largest trading partner by country, with bilateral commerce valued at \$25.7 billion last year. Of this, more than two-thirds were Israeli exports, giving the country a large surplus.

One stock that has already seen a big surge is Magal, whose sensors and command and control systems help to secure airports, borders, power plants, seaports and prisons.

Investors expect it to provide technology for the Mexican border wall, a contract that could reap vast rewards given that the project is expected to cost around \$20 billion.

With Magal’s shares up nearly 60 percent since the election, Chief Executive Saar Koursh is optimistic of winning work on the wall.

“Our chances are more than good,” he told Reuters, noting that the company, through its U.S. unit Senstar, was in touch with U.S. government officials. “This definitely would be a large scale project for us.”

### Defense and Cyber

Trump has also promised to boost defense spending and add military personnel. If he follows through, this could benefit Elbit, one of the biggest suppliers of drones and helmet based systems. Elbit shares are up 20 percent since November.

Before he took office, Trump questioned the high cost of Lockheed Martin Corp’s F-35 fighter, saying he had asked Boeing Co to offer a price for a “comparable F-18 Super Hornet”.

Such commentary caused ructions in the United States, but the Israeli company is ready to equip the pilots whatever. “Whether Trump sticks with the F-35 jet or goes with the F-18, either plane will have Elbit smart helmets,” Schoenfeld said.

Israel’s defense industry, led by Elbit, Israel Aerospace Industries, Israel Military Industries and Rafael, accounts for about 14 percent of the country’s exports.

The Trump administration is expected within weeks to send Congress a request for a supplemental bill to increase defense spending this year.

Ilanit Sherf, an analyst at the Psagot brokerage, said Elbit could expand its annual revenue by 5-6 percent, instead of the current 2-4 percent, if the U.S. defense budget increases following government spending cuts under Obama.

Cyber-security firms like Check Point may also see higher U.S. orders. Former New York City Mayor Rudy Giuliani, Trump’s cyber adviser, visited Israel last month and met Netanyahu to discuss closer cyber cooperation.

Israel has over 450 cyber-security firms. In 2016, 78 start-ups raised more than \$660 million from investors, according to the Israel Venture Capital Research Centre.

“Trump seems to be putting an emphasis on cyber-security so Israel and the U.S. will be even closer on the cyber-security front,” said Jon Medved, CEO of crowdfunding firm OurCrowd.

Companies such as Nice Systems and Verint, whose voice and data analysis technology is critical to security, may also see a boost.

Much rests on whether Trump’s spending plans go ahead and their wider effect in the United States.

“If the U.S. economy will grow, then Israel will benefit and vice versa,” said Ilan Artzi, chief investment officer at the Halman-Aldubi investment house.

That view is shared by the head of Israel’s central bank, Karnit Flug. “As a small, open economy we are very dependent on our major trading partners and the United States is a major trading partner,” she said in December.

But given Trump’s unpredictability, economists have so far held back on including any boost in their forecasts. The International Monetary Fund sees Israeli growth steady at around 3 percent a year for the medium term.

Medved warned that if Israel is seen as too supportive of Trump, it could backfire in the tech community, which is unhappy with some of his policies, particularly on curbing immigration.

“The key issue is you want to keep tech and business out of politics,” he said. “The great bulwark of our relationship with the U.S. is that we have been bipartisan and it’s potentially harmful for Israeli support to be associated with one party or another.”

Should the United States become more protectionist, Israeli exports, which comprise 30 percent of economic activity, might suffer.

This could be especially so were Trump to try to use the exchange rate to favor U.S. firms over foreign competitors.

“If Trump weakens the dollar it will have an impact,” said Uriel Lynn, head of the Federation of Israeli Chambers of Commerce. “We export 2.5 times more than we import from the United States.”

Risks could also lie in any attempt by Trump to side too closely with Israel. He had pledged to move the U.S. embassy from Tel Aviv to Jerusalem, Israel’s self-proclaimed capital and a holy city at the heart of the Israeli-Palestinian conflict.

The Palestinians want East Jerusalem - which Israel captured in a 1967 war and annexed in a move not recognized internationally - for the capital of a state they seek in the occupied West Bank and the Gaza Strip.

If Trump made good on his pledge, this would inflame Arab opinion, leading to possible Palestinian and regional unrest.

“Then you would have a drop in tourism and private consumption, which could impact the economy,” Leader Capital Markets economist Jonathan Katz said.

### X-Ray Vision: Israeli Researcher Sees Through Surfaces Using A Smartphone

Several technologies, such as X-ray, ultrasound, CT and MRI, allow us to see through surfaces.

But now, a new light-based technology developed in Israel could take us one step further. Instead of using a large x-ray machine, and potentially being exposed to radiation, we can now see through semi-opaque surfaces using only a smartphone. Developed at the Hebrew University of Jerusalem, this new light technology allows us to see through surfaces by analyzing the scattering of the light.

This preliminary research could in the future revolutionize science by enabling better microscope images, but could also help in diagnosing diseases in a noninvasive way, since our skin is considered a semi-opaque surface.

When light hits an opaque surface like frosted glass, it scatters, becomes jumbled and we can't interpret what's hiding behind the surface. Historically, researchers have thought light scattering to be totally random: If we can't see properly past the surface, then we can't receive information from it.

"Getting information from something that looks completely informationless"

But the new research out of the Hebrew University tells a different story. Light scattering is not random, and can in fact give us much information with proper analysis. "We are fascinated by the idea of getting information from something that looks completely informationless," Dr. Ori Katz, who leads the study, said.

Katz, who heads the university's Advanced Imaging Lab in the Applied Physics Department, is fascinated by this new way of using light to see through surfaces – and even skin. Katz and his team recently used a smartphone camera to take a photo of an object hidden behind a frosted glass window.

"What you see in the image we took is only a blurred halo of the light that comes from the object," he explains. "But by carefully analyzing the correlations in the image, we could retrieve the shape of the object." In other words, the light in the image actually revealed more about the object than the camera or the eye initially perceived.

### Looking deep into the body

Katz imagines a world of future possibilities in

just a few years, even in the security field. Think of any chase scene you see in a movie, where a bad guy can hide around the corner and out of sight from the cops. Now, he wouldn't be so lucky: The way light bounces off the wall could reveal where he is hiding.

That's why the US Defense Advanced Research Projects Agency (DARPA) is among the institutions offering grants to Katz's lab, which is also funded by the European Research Council and the Human Frontier Science Program. *superman*

Among the best known superheroes with "x-ray vision" is the fictional character Superman.

While the technology is still being developed, a revolution could be underway soon. Says Katz: "This really triggers one's imagination of what could be possible when light is scattered. You can look deep into the body. This is what really fascinates us and motivates us."

### Danaher buys Israeli co AVT for \$100m

AVT's automatic print inspection systems ensure quality and color for the packaging and labels market.

US manufacturing company Danaher Corp. (NYSE: DHR) is buying Israeli automatic print inspection systems company Advanced Vision Technology Ltd. (XETRA:VSJ) for \$100 million. Danaher will pay €14.5 per share in cash for AVT.

AVT's board of director has unanimously accepted the offer and has recommended that the shareholders also do so. The acquisition is expected to be completed in the second quarter of 2017.

Based in Hod Hasharon, AVT's automatic print inspection systems ensure quality and

color for the packaging and labels market. The company will become part of Danaher's product identification platform division.

AVT's optical inspection systems replace the human eye in inspecting packaging and labels and its leading products include X-Rite and Esko, which serve customers that use Danaher's platform.

AVT CEO Yaron Lotan said, "This is a major and exciting step in the development of AVT, which will benefit our customers and our employees. Our becoming part of Danaher's product identification platform division will strengthen our ability to implement our current strategy and allow us to bring a range of innovative solutions combined with the value and supply chain of packaging manufacturers.



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