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Dear Friends,

"A great city is that which has the greatest men and women", wrote the American poet, Walt Whitman. More than 120 years later, local governments around the world work hard to implement a wide range of high-tech "smart" practices and solutions to make cities safer, easier, more sustainable and more efficient for their great men and women.

Smart Cities is the focus area for this issue of Doing Business in Israel. Out of a multitude of smart city initiatives currently under way in Israel, we will present three examples, Jerusalem, Tel Aviv and Ashdod, cities that have positioned themselves as vanguards on a global scale.

Also in this edition are updates about latest global transactions involving Israeli companies, as well as information about a unique innovation center for children with special needs and a "Cultural Bite" that roams the streets of Tel Aviv with a local twist.

Best wishes for a successful 2018
As always – your feedback is most welcome.

Jonathan Lavender
Head of Markets
KPMG Somekh Chaikin, Israel
jonathanlavender@kpmg.com

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Doing Business in Israel

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Latest Transactions

Continental Buys Automotive Cyber Security Company Argus for Reported $430M

Based in Tel Aviv, Argus develops, detects and prevents digital interferences with critical auto systems by monitoring in-car communication. Continental is a German tire and advanced car components company. No financial details about the deal were disclosed but market sources say that the acquisition price was $430 million.

Alibaba Buys Visualead, in First Israel Acquisition

The Chinese e-commerce giant has entered an agreement to purchase the developer of an online platform to create designer visual codes and mobile campaigns. According to reports, the deal is worth tens of millions of dollars. This purchase will form the basis of Alibaba's Tel Aviv R&D lab.

Lear Buys Israeli GPS Company EXO

EXO has developed GPS technology providing high-accuracy solutions for autonomous and connected vehicle applications. Lear, a U.S leading global supplier of automotive seating and electrical systems, will integrate EXO's technology to further strengthen its connectivity capabilities. Financial terms of the transaction were not disclosed.

ServiceNow Acquires Israeli SkyGiraffe for $50M

SkyGiraffe has created a mobile platform that enables enterprises to develop mobile applications using their internal data sources more quickly and easily. San-Diego based ServiceNow is a leading workflow automation and service management software provider. ServiceNow said the purchase will help its customers easily deliver "consumer-like" mobile experiences for applications built on its Now Platform.

Israeli-founded "Social Eating Platform" was sold to its European Competitor

Both VizEat and EatWith connect travelers and local hosts around authentic food experiences — such as dining in a local's home, cooking classes, and food tours. According to VizEat, with the purchase of EatWith, the company will become the largest communal dining platform in the world.

Focus Area

Israeli Municipalities Take Smart City Projects to the Next Level

Forward-thinking Israeli municipalities are increasingly implementing a Smart City agenda to rewire the urban realm. Their cutting-edge practices have been honored with international awards. Project leaders from three cities explain how their smart city vision draws on their city's unique character

Jerusalem

Antiquities and 3,000 years of rich history usually come to mind as one thinks about Israel's capital. But Jerusalem, one of the most ancient cities in the world, is actually aiming for the forefront of technological progress in civic services.

Jerusalem's leading smart city project is the **Independent Wireless Network based on super-fast millimeter wave technology.** This cutting edge network will enable a wide variety of smart city services. "Due to the city's rocky topography, we cannot deploy fiber optics, which are already expensive and require long installation process", says Eitan Barzilay, chief innovation officer at Jerusalem's Economic and Technological Business Development Administration. "The millimeter wave technology is based on tiny boxes that emit thin beams using very high frequencies. It is able to transfer data at speeds of 1 to 5 gigahertz".

Already in its early stage of deployment, the network will include HD and 4K-HD cameras. It will enable the municipality to monitor hundreds of sites throughout the city, and thus to improve security, safety, traffic control and other aspects. "Our mayor's vision is to use only high-quality video instead of images", says Barzilay.

"This network will be the basis for an overall smart city system", says Barzilay. "We decided to go straight to full operation and skip a pilot stage as other cities did. We already have a master plan for the entire project". The municipality operates a control center that will manage the entire smart city functionalities down to the very last street light.

Many of these initiatives are coordinated with Cisco (PPP), a multinational company with a large R&D presence in Israel. The following are only a few examples of initiatives that are based on this innovative network:

- **Security and safety:** a camera network that monitors the streets and connects with security and emergency services.

- **Parking and traffic solutions:** Traffic optimization, regulation of traffic, smart-parking solutions via the camera system monitoring parking spaces.

- **Energy-Saving and lower-cost smart street lighting:** The street lighting in the Har-Homa neighbourhood will be replaced with 1,500 remotely controlled LED lamps. Later, 50,000 of these lights will be installed throughout the entire city.

- **Smart Garbage Cans:** Incorporating smart chips that make usage tracking and pick-up more efficient and cost effective.

- **Fast Internet for the city's education system:** Barzilay clarifies that "Schools cannot work with 100MB internet anymore, so the new network will provide them with the adequate speed".

Tel Aviv

The capital of the startup nation has a long reputation as a main hub for innovative high-tech companies, incubators and accelerators and as a place that many young entrepreneurs like to call home. Therefore, it's only natural that the local 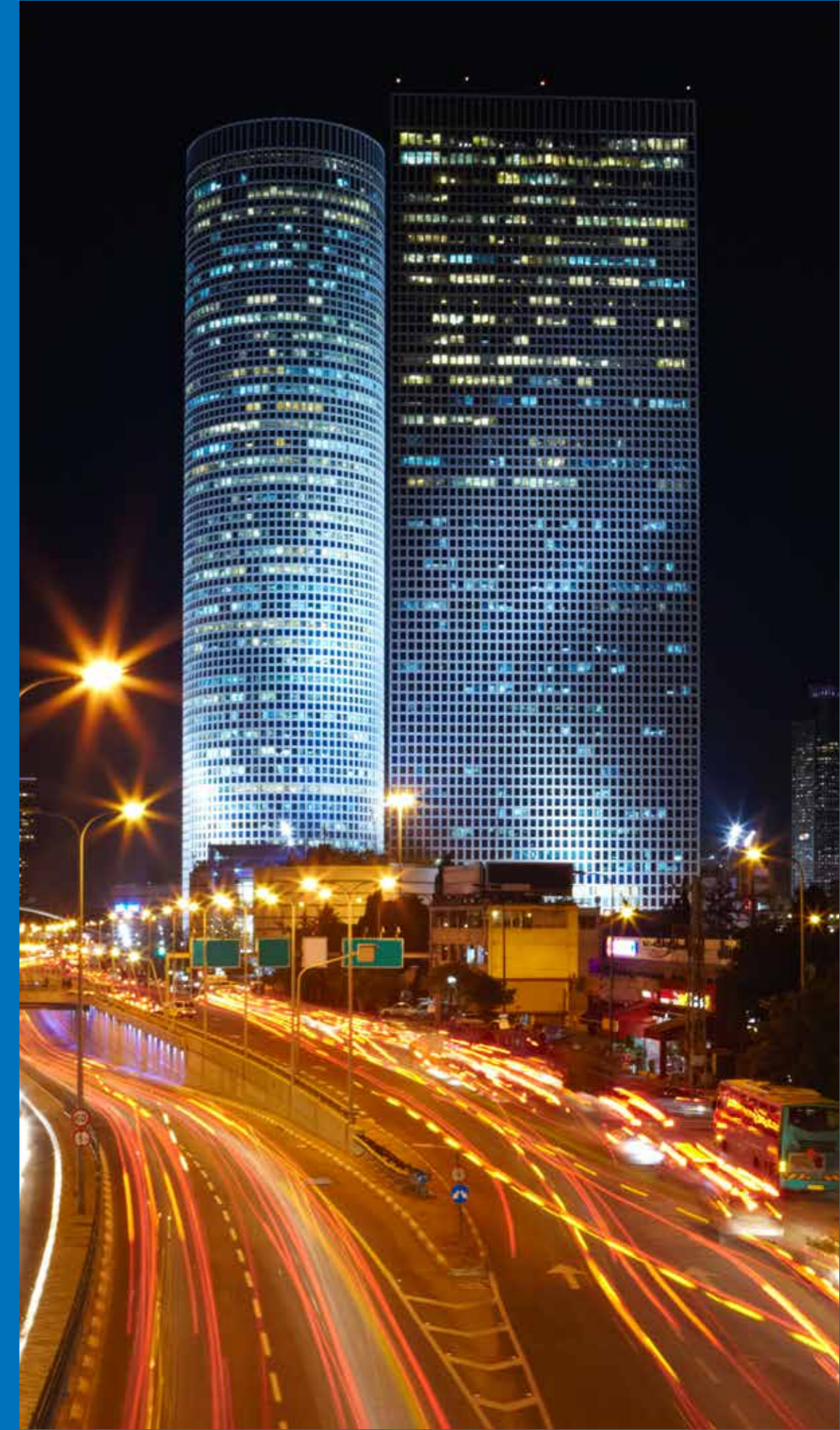municipality is determined not to stay behind its constituents and become one of the world's fastest growing hubs for smart-city technology.

Liora Schechter, Chief Information Officer at Tel Aviv Municipality, says that the smart city vision is resident-oriented, i.e. improving quality of life by listening to the residents' needs. "We believe that our residents are this city's greatest asset and therefore we strive to engage as many of them in the city's activities and decision making processes", says Schechter.

30% of Tel Avivians are 20-30 years old, and in general there is a large population of 'early adopters' who wish to be engaged citizens and have their say. Based on this perception, the municipality established its flagship Smart City project, **DigiTel**, four years ago. "Using cutting edge technologies, this platform interacts with each resident in a targeted, personalized, interest and location-based way, which draws on information that each of them uploads about habits and other preferences", says Shechter.

Residents receive a wide variety of individually tailored information, either by email or by text, such as notice of planned road works on their street and last minute discount tickets to events around town. Shechter states happily that "The response rate to DigiTel has been nothing short of amazing. 170,000 residents, representing more than 60% of Tel Avivians, have registered so far. In 2016 alone we've published on DigiTel more than 300 targeted campaigns to residents and 4 million emails with 41% click rate." The project managers were surprised to learn that the biggest click rate is among the group of 66 years old and up – 88%.

DigiTel has won Tel Aviv the title of Best Smart City of the 2014 Smart City Expo World Congress that was

held in Barcelona. DigiTel has also produced two "spin offs": **DigiTaf** – A one-stop-shop of information for Tel Aviv parents, and **Digi-Dog** – providing residents with information about the next vaccine for their dogs, special events and updates from the municipal vet, etc.

All Tel Aviv's smart city projects are based on 4 focal points: crowd-sourced wisdom, data collection, public participation and collaboration between residents, businesses, NGOs and municipal administration.

The following are some of the other initiatives currently underway:

- **Transportation:** reducing traffic congestion by using Auto-Tel, a car sharing service with a city-wide vehicle fleet of 260 cars that can be reserved within 15 minutes.

- **Open data:** Direct access to municipal databases and archives. The archive that contains the construction plans of the buildings in the city was made available to the public free of charge.

- **Beta Site for new technologies:** Tel Aviv has earmarked one of its neighborhoods as a beta site to test out new technologies in the public sphere.

- **Free WiFi:** Provided in the public domain to all users in over 80 zones, even at the beach.

- **iView (GIS):** A municipal geographic information system, which renders geo-spatial information readily available and easily usable for all. Engineers, for examples, can locate blocs, parcels, electricity and water infrastructures, and view an individual zoning plan and its associated documents.

Ashdod

The southern port city of Ashdod is the nation's sixth-largest municipality, with 250,000 inhabitants. Ashdod's car ownership is higher than other Israeli cities, which led the municipality to focus its Smart City vision on smart transportation solutions.

The Industry Development Division at the Ashdod Municipality has created a joint venture with MIT and leading transportation companies in Israel like Mobileye, Gett and Waze by the formation of a **Smart Mobility Living Lab** for developing and testing advanced transportation systems.

Smadar Itskovich, Head of Industry Development Division, says that this program "creates an innovative cluster that boosts the entire economic development of the city". According to Itskovich, "We didn't aspire to compete with Tel Aviv or other cities, but to find our comparative advantage, which is connecting the physical infrastructure with the technological data infrastructure via the Living Lab."

The lab collects data from a large number of sources — GPS navigation firms, transportation apps, on-demand mobility companies, and sensors set up on city streets and in bus stations and buses. Combined they create an open database, accessible to startups, academics and government units that are interested in developing technologies to create smart transport systems.

Two years ago, Ashdod was chosen by the Transportation Department to be a test case for a **reconceptualization of city mobility, called the ReWay**. The Reway smart road, a 10 km strip already under construction, aims to reduce car-ownership by increasing the use of walkways

(ReWalk), bike paths (ReBike) and "smart" public lanes (ReBus). This smart road laid on an advanced infrastructure of optic fiber sensors and a camera network, which are connected to a computerized control center which operates 24/7 and commands the traffic lights and buses.

All this will connect via cloud to a centralized system connected to the Living Lab project, and will provide researchers and entrepreneurs necessary data about traffic and driving patterns that will enable them to test out their technologies locally.

"Another aspect of the project is **digitally mapping** out the city in a way that serves autonomous vehicles in the future" explains Itskovich. "We'll install the new Mobileye system, which uses 3 cameras installed on top of buses and collects data, which is uploaded to Microsoft cloud. Eventually, it will create a high-resolution real-time digital transportation map that will enable the integration of autonomous cars in the city roads. In terms of potential developments that can come out of this project – the sky is the limit".

The city held a roundtable on smart and autonomous public transportation, attended by specialists from London, Munich, Nice and other cities. "We strongly believe in innovation through cooperation", says Itskovich. "We aspire to join forces with other cities to solve urgent urban issues such as congestion, accessibility and road safety. We are setting up an international consortium, joining forces with cities from all over the world, sharing solutions for common transportation problems, without being bound by politics, ideology and geography."

Tel Aviv

150,000 **Residents**
have signed up to DigiTel in the 3 years since its launch = every second household

1/3 Of Tel Aviv startups deal with smart city applications.

4 Million Emails
Were sent to residents via DigiTel platform during 2016

Jerusalem

1-5 Gigahertz
Data transfer speed of the city's independent wireless network

1,500 LED lamps
will be installed as part of the smart street lighting pilot project

2,000
Smart garbage cans will be placed around the city in the next 3 years

Ashdod

Smart Transportation Living Lab Projects:

Transportation Digital Mapping
A real-time digital transportation map that will enable the integration of electric and autonomous cars in the city roads

REWAY
Unique traffic system containing smart roads, smart stations, BRT road, pedestrian and bike roads

Test Road for Autonomous car
Advanced test area which enables a sterile examination of the autonomous vehicle's capabilities in a controlled manner

Smart transportation Round Table
Joint venture of the leading technology companies in Israel together with Ashdod municipality and MIT, aims to create a zone to develop and test advanced transportation systems

Israeli Innovation

ALYN Innovation Center for Special-Needs Kids

More than 90 million children around the world live with severe physical limitations hindering their daily life. After decades of giving rehabilitation treatments to children and adolescents who suffer from physical disabilities, ALYN Hospital in Jerusalem has decided to tap into Israel's technological ecosystem.

A state-of-the-art innovation center was recently opened, with the aim of inventing new ways to help kids with special needs. Entrepreneurs and developers share a work space, where they develop in-house products and technologies that will improve independence and quality of life of these children.

This is the first time that all elements that are required for innovation in this field are brought together under one roof: knowledge and experience of experts, cooperation of clinical research, opportunity for product testing in a controlled and safe environment, and a physical work space with an advanced laboratory for prototyping and initial manufacturing.

The center operates in two programs:

- PELE (a Hebrew acronym for Solutions for Children of ALYN), which helps individual children solving a particular problem that does not have an off-the-shelf solution; and ALYNnovation that works as a startup incubator, identifying innovations that can benefit a broader audience of children with special needs, and then commercializing the product and bring it to a global market.

- ALYN's relationships with Israeli corporations and institutions such as Intel, the Israel Aerospace Industries, Cisco, Hadassah Academic College, and Bezalel Academy of Arts and Design put a lot of brainpower into crafting assistive devices for young patients.

https://www.alyn.org/

Tel Aviv Greeter

What's a better way to explore a city than taking a walk around town accompanied by a local? A visitor in Tel Aviv can do just that by using Tel Aviv Greeter tourist service.

A local Tel Avivian volunteer takes you around the city to places you would probably not see on a regular sightseeing tour. This is a great platform to learn about living in the city from a local's perspective, and to chat and ask questions. The volunteers come from all walks of life and are not professional guides. They are people who take pleasure in sharing their passion for the city with travelers. The service is completely free of charge, and the greeters are not allowed to take tips.

How does it work?

Very simple. 2-3 weeks before your trip, visit the Tel Aviv Greeter website and request a Greeter. You will then be matched with a Greeter who speaks your language (English, Hebrew, French or Spanish). Your Greeter will meet you at an appointed time and place, and will take you on a 2 hour walk around the city.

The Tel Aviv Greeters are part of the Global Greeter Network, a virtual association of Greeter programs around the world.

http://www.telavivgreeter.com/