Smart City in Israel and its Potential for Flemish Companies
Abstract

This brief paper discusses the Smart City technology sector in Israel.

Broadly, the aim of Israel's smart cities is to bolster economic growth across industries, reduce the gaps in living standards between cities, and enable citizen-centric services with the tools necessary. The Israeli market has a lot of potential for a foreign company due to its advanced technological industry. Even more so, the country invests heavily to support enterprises in this sector and enforces many regulations which facilitate foreign exchange and trade.

The purpose of this paper is twofold:

- To shed light on the current situation in Israel
- To present the main opportunities and challenges interested Flemish companies can face when considering entering the Israeli market.
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Introduction

A smart city is a fairly recent phenomenon, but its popularity is growing rapidly as it is seen as the winning strategy in resolving several detrimental urban problems such as traffic, pollution, waste treatment and more. Smart City originates from older city-planning policies such as sustainable cities. A smart city is a continuation of those policies, essentially a long-term vision of an improved urban area with the goal of decreasing its environmental footprint, creating more efficient public services and traffic planning, ensuring the protection and security of its citizens, and creating a better quality of life for its citizens.

A rapid growth in sensor and wireless communication provides the means for city-wide service platforms. It offers opportunities to customize public or enterprise services as city services using city-specific data and infrastructure. Key elements of such services include IoT-powered real-time data and open data from public sectors. These data leverages harness the full potential of smart city platforms. However, the increasing need of smart city services creates a challenge for the integration of city-wide information infrastructure, including a range of sensors and open data industries.

The Israeli Market

An increasing number of smart city initiatives have been implemented across Israel in places like Tel Aviv (with an initiative like AutoTel), Modi’in and Jerusalem.

Until recently, there was no direct incentive for the expansion of smart city solutions in Israel, as is the case in other countries. However, with strong support by the Israeli government in the form of tenders and other government initiatives, startups and companies can now compete alongside traditional big players. One such government initiative will contribute a small sum of about $700,000 to a national program to help make cities smarter. The program, called CITYZOOM will create an ecosystem aiming at encouraging entrepreneurs to address the challenges, from cybersecurity threats to traffic jams and smart parking. Another program was launched by the Ministry of Social Equality.

Israeli cities are increasingly investing in smart security solutions. Also, Israeli companies, as well as numerous startups, are entering the field, hoping to become key players in a market set to be worth more than $1.5 trillion by 2020.

From the tech side, Israeli R&D companies of large multinationals including Intel, Cisco, Motorola, and Microsoft are producing sensors and apps that allow for consistent and automatic data transfer on interconnected systems. A variety of smaller Israeli firms are innovating other smart city technology, parallel to the major players.
The Private Sector’s Role

The private sector is a major influence in the emergence of smart city technology in Israel. For example, the country’s largest telecom group, Bezeq, plays an important part. Bezeq has invested millions to develop systems for cities that use the Internet to operate street lighting, pollution regulation, and even waste management. The company started an experimental project that it described as “a full urban management system with a range of municipal services, including parking and smart transportation, trash collection, lighting, free web browsing on the city’s streets, security cameras for a smart and safe city, monitoring of the water and sewage systems and more”.

Additionally, Bezeq partners with similar international telecom firms to create a novel Smart City internet driven infrastructure. Potential partnerships like this are a good point of entry for foreign trade. At the end of the day, it is going to be an engagement between the private sector and municipalities, which is monitored or guided by the government, that dictates the market.

On a smaller scale, ZenCity is a good model of a promising Israeli start-up. The company utilizes advanced technology to analyze the main concerns of citizens and report feedback to the local government. It applies artificial intelligence (AI) and machine learning to sift through citizen feedback provided by email or social media, and subsequently sends results to city managers and planners via a dashboard. At the moment, ZenCity is working with ten cities in Israel, US and France, including a pilot program in San Francisco. Studying these impressive examples, it is easy to grasp why partnerships with startups are so instrumental. See also the Israeli companies that participated in Smart City Expo (2017) in Barcelona.

The Municipalities’ Role

While many forward-thinking municipalities have invested in the Internet of Things (IoT) and embraced technological innovation, how exactly smart cities should be run in Israel is more complicated. In Israel, certain cities offer advanced digital application, efficient transportation solutions and more, yet others struggle to supply basic services to residents. There is a gap between the ability of cities to invest in technology such as parking sensors and lighting.

Another problem with smart cities is the relationship between municipalities and technology suppliers like Cisco, Intel, Motorola, and Microsoft. Often it is the supplier who dictates the solution, while the municipality is often reliant on a single supplier.

An example of a municipality trying to meet this challenge is the above mentioned Tel-Aviv. In 2014, it was awarded the title of Best Smart City in the World for its key smart city initiative, the DigiTel Residents Club. With this, municipal leaders realized that they needed to change the way they engaged with citizens. As Israel’s leading business centre, Tel Aviv’s main priorities are supporting high-tech companies and start-ups so the city launched DigiTel. DigiTel cardholders have access to a personalized web and mobile platform that provides residents with individually tailored, location-specific services delivered via email, text messages and personal resident accounts.
Business Startups’ Key to Smart City Innovation

One of the greatest strengths of Israeli smart city policies is their ability to channel the potential of the country’s innovative startup scene into creating solutions to pressing needs. For example, in Tel Aviv, the city supports a minimum of three transportation apps. The benefits of this include a great service to residents, a solution to the market demand for busy commuters, and lastly encouragement of more innovative business in the city. The relationship between the municipality, local industries, and the private sector motivates business activity and foster sustainable solutions. Bureaucratic support and open data are valuable foundations for this.

Internet of Things

A crucial element of Smart City advancement is the IoT revolution, and Israeli start-ups are at the forefront. For instance, PointGrab creates smart sensors that monitor activity in smart buildings, and Seebo strives to transform any ordinary object into a smart one. The adoption of Internet of Things (IoT) has bolstered the Israeli economy across the board from high tech to defense industries. The range of possible usages for IoT devices is theoretically unlimited. There are lucrative opportunities in the Israeli market for Flemish companies with cutting-edge technologies.

Yet the success of any company, especially in the IoT sector, is only possible in a secure cyberspace as every newly connected device increases the attack surface of hacks and breaches.

Competition

The most significant competition for foreign exporters to Israel is the rapidly maturing domestic market. Israel is coined “the start-up nation” for a reason. With a large number of start-ups, firms, and multinationals that spearhead the smart city sector from wireless and sensor communication to IoT-empowered devices, breaking in is difficult. Companies that offer a unique value-added proposition though can reap the rewards in the Israeli market.

Listed below are a few recent examples of domestic Smart City companies in Israel:

- GreenIQ
- Parkam IP
- MobilEye
- Afcon Software
- Waycare
- Zencity
Key Areas to Smart City Innovation

The greatest challenge for businesses looking to get involved in this sector is narrowing the scope of "smart cities." Thinking about all the interconnected products and services, it is hard to single out an area where a company can become a leader. The aim is to identify where companies can add value. Listed below are important areas in general and relevant for the Israeli market in particular, as far as smart city innovation is concerned.

Commerce

A smart payment model is crucial to most smart city technologies. Current smart payment technologies are just an early introduction for what is to come. Rather than simply paying with a mobile device, smart commerce will use citizen-specific data to drive personalized sales and programs.

Some stores are experimenting with push notifications that are sent based on proximity to the location, but smart commerce will go further to understand the specific needs of citizens in real time. The obstacle will be designing a user experience that meets the needs of a diverse city population in Israel. While UX is appealing and the technology provides convenience, smart cities can use the system to customize commerce in any way.

Entertainment

Cities, like Tel Aviv, are already hubs of entertainment – sporting events, concerts, community events etc. However much entertainment is disconnected. In a smart city, citizens will expect to take out their mobile device and see a fully-integrated calendar of possible events with transaction capabilities for tickets, rewards and more.

Before this can be achieved, there are numerous technologies that require development. Ticketing services, point-of-sale services, social touch points, and a big data platform are a few possibilities.

Transportation

Smart Cars already exist. Yet transportation in a smart city is more than just cars. Every aspect of transportation will be integrated into a smart grid. Citizens will see bike, bus, and taxi availability; parking will be easier; car sharing will be smarter; IoT will help sort out traffic patterns.

All these aspects of smart transportation will require to advance underlying technology to be built and to tap into open data platforms. Smart mobility is an area that has a huge demand for services and tools to enable quicker and more efficient transportation.
Housing and Offices

The smart home currently uses voice-activated lighting or intelligent thermostats. The key is to look forward and offer services that are seamless. All aspects of living and work spaces should go dark until needed, from heating, lighting, security or anything else. There’s plenty of opportunities for innovative companies to bring more efficient machine learning and analytics to this area.

Municipalities and Utilities

There is no doubt that energy efficiency is among the biggest opportunities for smart city innovation. With a smart irrigation system, a single homeowner can save gallons of water per day. If a company can scale these savings to a whole municipality, thousands of gallons can be saved daily. Water efficiency can increase exponentially.

This same concept can be applied to electricity, recycling or waste management. Many successful “smart” technologies could quickly overcome the difficulties that urbanization creates.

Market Approach

Because of the rapid changes in the sector, it is highly advisable that interested companies will monitor constantly the developments and trends in Israel. This can be done by visiting the numerous events and tradeshows that take place in Israel, by setting up meetings with potential Israeli partners and by using the services of FIT Tel Aviv.

Listed below are upcoming trade shows held in Israel:

- New Tech Exhibition
- The Embedded Microprocessors & IoT
- Motion Control, Automation & Power Solutions
- Muni World

Israel is a highly developed western orientated market, which is why Israeli companies are always on the lookout for joint venture and collaboration opportunities. A strategy could involve partnering with an Israeli importer or distributor for the purpose of jointly competing in tenders in the country or on various government initiatives. The business opportunities that come along with smart cities in Israel can be seen as a potential market for Flemish companies involved in products and services within the smart technology, sustainable solutions and hi-tech fields.

Moreover, there are good opportunities for Flemish companies with international marketing expertise, research assistance, and logistical organization tools to work with Israeli companies that may be lacking in these aspects.

Foreign companies looking to partner with Israeli tech companies must be wary though because Israeli businesspersons expect exclusivity when representing foreign companies in Israel.
It is important for companies to recognize their unique sales propositions within Israel’s smart city sector before entering the market. It may sound obvious, but it is highly valid in the sector at hand: One has to have a high-value (or niche) product and technology with a clear added value before one targets a foreign market. The companies that possess these qualities can approach the Israeli market.

One should put into account the differences in the business mentality that can lead to misunderstandings and gaps in expectations. The business environment and style will seem familiar to Belgians, though dress may seem more informal and personal relationships play a greater role.

It is suggested to approach a local lawyer before signing any binding document (because of, among other things, the local distribution laws).

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