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CYBERSECURITY  
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# Cybersecurity and FinTech in Israel

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## In a nutshell

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This short paper offers a glance at the Israeli cybersecurity and FinTech sector.

Cybersecurity has become one of Israel's main export segments (approximately \$ 3.5 - \$4 billion in 2015).

Hundreds of Israeli companies, in addition to 20 global/foreign R&D centres and advanced security providers, are active in Israel.

The main business domains are: FinTech, threat intelligence, protecting data and applications, identity and access management, mobile security, network, web and physical security, anti-fraud.

FinTech is gaining importance within the sector and many companies are offering services globally.

The Israeli high-tech sector, cyber security included, gears up towards the global market. Israel in itself can offer direct business opportunities for relevant companies, as the need for cyber and FinTech solutions is evident and rising. However, the big opportunities lie elsewhere, in cooperating with Israeli companies in the global market.

## Cybersecurity

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The Financial Times published (March 2016) an extended supplement about Israeli technologies and innovation. One of the subjects that were dealt with was cybersecurity. In an article titled [High-tech spies build civilian cyber industry](#), FT cites a research and mentions that almost 70 security start-ups are founded in Israel each year. Among the numerous reasons behind the success of the Israeli cybersecurity industry, the article focuses on government aid and the substantial opportunities that are open for youngsters. As a result:

- These young professionals, and their potential, attract multinationals like IBM and PayPal to Israel.
- The public and the private sector alike are doing their best to make the most out of this phenomenon.

The cybersecurity sector in Israel is characterized by three main elements:

- **Intensive growth and cutting edge technologies:** Within a couple of years the cybersecurity sector, which was present in the Israeli high tech scene for quite some years, has leaped significantly and become a major economic element in the high tech sector. Because of local and international demand, practically all domains within the sector are being dealt with by Israeli companies.
- **Governmental investments:** The Israeli government has decided to invest in the cyber sector in the same way it has previously done with the high tech sector, turning it, through policies, incentives and investments, into a major global industry.
- **Exits:** Many Israeli companies are looking for an exit and often find a big multinational or an Israeli company that would buy them.

Indeed, cybersecurity has become one of Israel's main export segments (about \$ 3.5 - 4 billion in 2015, 5% of the global IT security market and even more according to [Forbes](#)) and a major target for public and commercial investments (\$500 million in 2015). The Israeli capabilities in this sector have not gone unnoticed by multinationals. In 2013 IBM, Cisco and General Electric (GE) made major acquisitions or investments in Israeli cybersecurity companies. This contributed to the fact that more than 10% of all investments in the global cybersecurity industry have taken place in Israel. According to data relevant to mid-2015, Israel's share in global private investments in the sector reached 20% (preceded only by the US).

The Israeli investment in the cybersecurity sector derives from:

- The continuing Israeli focus on defence issues,
- The country's technological capabilities and
- The growing importance of the sector worldwide (due, among other things, to growing vulnerabilities, following for instance, the spread of cloud computing).

Hundreds of Israeli companies, in addition to 20 global/foreign R&D centres and advanced security providers, are active in Israel. The multinationals include PayPal, IBM, EMC, RSA, GE, VMWare, GE, Cisco,

Deutsche Telekom, Lockheed Martin, CA Technologies and McAfee. IBM, Cisco and GE, have also major cybercentres set up in Israel.

In September 2013 the [Advanced Technology Park](#) on a campus next to the Ben Gurion University in Beersheba was inaugurated. The park is the cornerstone of the cyber and cybersecurity centre of Israel and will include academic, commercial activities, R&D and more. It will also function as a central element in the Israeli decision to emphasize the cyber sector, both towards meeting internal needs and, at the same time, towards turning it into a substantial export branch.

Generally speaking, FinTech (that for the purpose of this discussion can be defined as **technologies supporting the operations of banks, online payments and e-commerce**), followed the path paved by the trends in the cybersecurity sector in general. And while Israeli FinTech start-ups raised about \$13 million in 2009, five years later funds raised reached \$369 million. For more about the relations between cybersecurity and FinTech, [see here](#).

## Main business domains

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[IATI](#)<sup>1</sup>'s<sup>2</sup> survey of Israel's high-tech industry<sup>2</sup> names several domains in which Israeli companies in the cybersecurity sector are active and which are expected to grow significantly in the coming years.

### Threat intelligence

There are several tens of Israeli companies that focus on threat intelligence security. Many of these use Big Data technologies to provide solutions. A notable example is [Seculert](#), a provider of a cloud-based malware detection technology.

Several Israeli start-up companies specialize in this domain too. Their activity has attracted significant interest from some global cybersecurity companies and top-tier VC and private equity firms. A case in point is [Aorato](#), which provides solutions for protecting the Active Directory service aiming at securing organizations from advanced targeted attacks. The company was founded in 2011 (when it raised \$11 million in VC funding) and was acquired in November 2014 by Microsoft for \$200 million.

### Protection in and out of the cloud

Since companies are not really keen to move their data into a cloud (because of information security concerns and supervisory requirements), an increasing number of security companies, including Israeli ones, are attempting to address this issue. One of the most noticeable Israeli companies in the information protection and control (IPC) market is [Check Point](#) (see also [below](#)), a multinational and one of Israel's oldest high tech companies. [Imperva](#) (see also [below](#)) is another noteworthy Israeli player. It recently acquired another Israel-based company [Skyfence](#) that specializes in security and compliance solutions for cloud applications and data for \$60 million.

Database security is yet another important category, in which Israeli companies were among the first to enter. The above- mentioned Imperva is a global player in this market.

### Identity and access management (IAM)

IAM is an important field of expertise for Israeli industry. IDC Research maintains that the main motivation for buying IAM solutions is the need to reduce risks by effectively identifying internal and external contacts (employees, customers, etc).

Several Israeli IAM companies have been acquired recently. For example, during Q1 2014, Google acquired [SlickLogin](#), a provider of authentication technology and Ping Identity acquired [Accells Technologies](#), which provides context-based mobile authentication.

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<sup>1</sup> IATI is the Israel Advanced Technology Industries Association.

<sup>2</sup> Source: [Israeli ICT Industry Review 2015](#)

## Mobile security and the BYOD (Bring Your Own Device) challenge

The need to use security solutions to protect mobile devices, applications, and data (whether the devices are company owned or private) is increasing.

Among the Israeli companies that deal with this issue is [LetMobile](#), a developer of cloud-based solutions. In Q2 2014, the company was acquired by LANDesk for \$15 million. Yet another prominent company is [Discretix](#), a provider of embedded solutions, which was acquired by Sansa Security in Q4 2014.

## Network security

This is one of the domains in which Israeli companies have the most experience. Check Point is no doubt one of the leaders of this market. According to IDC data, the company is one of the most dominant in the market with approximately \$1.17 billion in revenues and a share of 14,8% (2013). But other Israeli companies are active in this domain as well. One of them is [Radware](#), a provider of services for virtual and cloud datacentres.

Israeli companies are also present in the security lifecycle management solutions domain. These companies assist organizations that are exposed to security vulnerabilities following misconfigured networks and security systems. Israeli companies [Tufin](#) and [Algosec](#), for instance, are among the first to introduce this concept.

## Web security

This field is one of the main domains in which Israeli companies are active and more companies are entering the arena. A main player is [Trusteer](#) (see also [below](#)), which aims at securing SaaS applications, web browser transactions and communications between service providers and users. Also worth noting are [PineApp](#), a provider of web filtering, email security and email archiving solutions and [CYREN](#) that offers cloud-based web security, email security, and anti-malware solutions.

## Anti-fraud

Anti-fraud is a significant domain for Israeli companies. One of the most important, big and veteran players in the Israeli high tech sector is the multinational [NICE Systems](#) (see also [below](#)), which specializes in anti-fraud solutions.

Also worth noting is [Intellinx](#), whose solutions enable monitoring end-user behaviour. Authentication and biometric technologies are important domains too. [Top Image Systems](#), a provider of managing and validating content solutions is an example of the former and [FST21](#), which specializes in biometric and analytic technologies, represents the latter.

## FinTech

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As of 2015 there were more than 200 Israeli start-ups in FinTech in areas such as payments, anti-fraud, banking and financing. In total there are about more than 430 companies in the sector and an additional 14 development centres of international corporations according to [IVC Online](#) (Globes, 19 November 2015)

It is worth noting that [FINTECH 100](#), the Leading Global FinTech Innovators Report 2015, named several Israeli companies, with [OurCrowd](#), the world's leading equity crowdfunding platform for accredited investors to invest in Israeli and global companies, in the 10<sup>th</sup> place.

According to [a sector overview](#), there are several reasons why the FinTech industry has been successful in Israel. Among them:

- Israeli financial institutions are early adopters of new technologies for data storage security.
- A growing number of local IT security companies have developed and market specific solutions which tackle the challenges and threats that the financial services providers are facing.
- With a tradition of developing mobile technologies, Israeli companies play an important role in mobile VoIP and banking platforms, customer care, mobile payments and more.
- Because of the small size of the domestic market, Israeli companies (in the entire high-tech sector) aim high from day one, and focus their efforts on the global market.
- The [Chief Scientist](#) in Israel regards FinTech as a strategic goal.

Of course other reasons, as [mentioned earlier](#) regarding the Israeli cyber industry in general, play a role here as well. See also [Useful Websites](#) below.

In an article published on the website [No Camels](#) the writer, Maya Yarowsky, claims that:

"o lead in FinTech innovation, Israel has a number of advantages, including its small size, which acts as a great testing ground; very high mobile engagement among Israelis; and the big data skills learned in Israel's elite army intelligence units, like the 8200 unit, known for its crop of future star entrepreneurs."

"I think the great advantage of Israeli FinTech is that there is a limited local market, which forces the local FinTech industry to focus on larger global markets," says Yoni Assia, CEO and Founder of eToro, the social investment network that uses real-time features to let users follow and trade based on other users' activities. "The payments, trading and Bitcoin systems that emerged in Israel are in general more global than those in other countries," adds Assia. The "microcosm" of Israel represents a good trial market for global/geared financial start-ups that want to make sure that their technology really works before they launch it in the US, an economy 39 times the size of Israel's.

In addition, Tel Aviv has gained an important place in the global financial arena. According to the [Global Financial Centers Index](#), Tel Aviv reached the 21<sup>st</sup> place in the 2015 index, well ahead of Amsterdam (46<sup>th</sup> place) and Brussels (57<sup>th</sup>).

According to [IVC Online](#) (Globes, 19 November 2015), there are about 430 local companies dealing with FinTech and an additional 14 development centres of international corporations. \$369 million have been invested in FinTech in Israel in 2014.

Sector experts agree that while B2C FinTech companies are active in Israel (payments transfer, loans, etc.), more activities are to be found in the B2B domain, as local financial institutions look for technologies and support their development.

Among the hundreds of FinTech companies and start-ups in Israel, some of the most prominent players are:

- [Payoneer](#) specializes in mobile payments. It is a pay-outs provider that streamlines processes by replacing traditional payment vehicles.
- [Surecomp](#) specializes in trading platforms. It is a provider of global trade solutions that support the reconciliation and investigation of SWIFT and non-SWIFT confirmations.
- [Clarisite](#) helps financial institutions visually manage customer transactions, customer relations and even disputes.
- [ForeScout](#)'s solutions create information security for banks within the bank's network and between branches.
- [Wondernet](#) creates electronic signatures for a paperless branch: electronic signatures on clients' documents with no need to print. The company has penetrated the Italian financial market in a joint venture with Netalizer.
- [ThetaRay](#) provides unknown-threat detection solutions that protect financial institutions' core infrastructure.

IT services such as training and business analytics are also at the focus of Israeli companies.

See here an overview of the companies in the sector (double-click to see in full size).



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## Parameters that will influence the industry

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According to Mr. Gadi Tirosh, of [JVP CyberLabs](#), a major VC fund in Israel, there are several reasons why Israeli cybersecurity will increasingly flourish in the coming years<sup>3</sup>:

### Increasing threats

Cyberattacks on companies and government institutions continue and have been increasing in recent years in number, range, size and levels of evasiveness, intent and damage. Not surprisingly, Israel's official and private websites are among the most targeted.

### Exponentially growing data

As the volume of data that businesses manage expands, there are more opportunities to steal and, hence, more data to protect.

### Access is everywhere

As the quantity of data grows, so do the ways to access it, via mobile devices, cloud, IoT (Internet of Things), private devices (BOYD- Bring Your Own Device), vehicles, etc.

### International expertise

Currently, there are only a few high-tech hubs in the world that specialize in cyberdefensive solutions. Since Israel has already established itself as one such (major) hub, it will probably continue to enjoy its unique competitive edge in the foreseeable future.

### Local (and foreign) resources

The Israeli authorities, academic institutions, the high tech sector and the military keep cybersecurity high on their agenda. The rise of recent M&A in the cyber arena, specifically of Israeli companies, will continue to motivate more companies (including multinationals) and investors towards developing this sector further. A partial list of such M&A's include JVP CyberLabs's [CyActive](#) that was bought by PayPal, [Cyvera](#) by PaloAlto and [Trusteer](#)'s by IBM in 2013 for \$800 million. In addition, in recent years noteworthy public companies have been established in the Israeli cybersecurity arena, including [Imperva](#) and [Varonis](#), as well as the most successful Israeli IPO of 2014, [CyberArk](#).

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<sup>3</sup> Source: [Venture Beat](#)

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## Opportunities and challenges

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### Challenges

The intensity of the Israeli cybermarket, its versatility and its sheer size pose challenges to any foreign company wishing to enter the local arena.

It may sound obvious but it is highly valid in the sector at hand: one has to have a high-value (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. They are then to face with two options:

#### End-clients or a representative

When exporting, one can opt of course to work directly with clients, or via a local representative (an agent, distributor, etc.). The characteristics of the chosen channel reflect on the advantages and disadvantages of each choice.

Working directly with clients may be time consuming, as they are often small businesses. Also, a foreign company lacks the network, knowhow and business relations a good local representative has.

Closing a deal with a representative usually entails exclusivity, which is very common in the Israeli market. It requires then finding the most suitable Israeli partner, as far as their reliability, experience and contacts are concerned.

### Opportunities in Israel and abroad

The Israeli high-tech sector, cyber security included, gears up towards the global market. Israel in itself can offer direct business opportunities for relevant companies, as the need for cyber and FinTech solutions is evident and rising. However, the big opportunities lie elsewhere, in the global market. Practically all Israeli high tech companies are looking for projects, deals and clients abroad. Thus, joining forces with Israeli companies, particularly when considering the presence and reputation of the Israeli high tech (and cyber) in the US, represents real and substantial opportunities for Flemish companies. Examples for ongoing cooperation:

- The 2015 The US - Israeli official statement committing to joint cooperation in the area bolsters the commercial relations even further.
- In March 2016, [the US-Israel Cybersecurity Summit](#) took place, which contributed its share to the links between the two countries.
- [U.S. Deputy Secretary of Homeland Security visited Israel's cyber conference](#).
- Lockheed Martin officially released a cybersecurity solution based on the Israeli company [Cybereason](#) technology.
- The US – Israel Business Initiative organized a high-level US-business mission aimed at connecting US companies with relevant companies and instances in Israel.

But Israeli companies do not focus only on the US. Asia is also in the focus of the Israeli cybersecurity industry. See for instance an article about possible business relations with [India](#) and [China](#).

So, to reiterate, when considering entering the Israeli cybersecurity (and FinTech) market, one should bear in mind the global picture and should offer a product or technology accordingly.

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## Market approach

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There is a difference in business mentality between Israel and Belgium and one should not underestimate it. See for instance '[tips & tricks](#)' for some background information. In any case, the bottom line is: Israeli business people like to improvise, act and react quickly and expect to-the-point information with the added value of the technology involved (and a unique sale proposition) from their business partners.

It is suggested to approach a local lawyer before signing any binding document (because, among other things, of the local distribution laws). FIT Tel Aviv can be of assistance in contacting relevant lawyers.

See [the Israeli law and business practice](#) concerning agents and distributors.

Business and financial info about companies can be purchased from, for instance, [D & B](#).

See [a detailed brochure](#) regarding doing business in Israel.

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## Useful websites

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### General

- [FinTech background info](#)
- [FinTech - one of Israel fastest growing high-tech sectors](#)

### Why Israel

- Reasons why [Israel is the next global FinTech hub](#)
- [How Israel came to be at the forefront of FinTech Innovation](#)
- [Why Is Israel So Good At FinTech?](#)
- [Is Israel the leader in FinTech innovation?](#)
- [The Rise of FinTech in Israel](#)

### Events

- [Cyber Week](#) (19-23 June, 2016)
- [Cyber Tech 2017](#) (31.1 -1.2, 2017)

### Databases

- [Israeli FinTech companies](#)
- [Israeli cyber security companies](#)
- [Israel Homeland security companies](#)
- [Israeli VC funds](#) (as well as [here](#))

### International activity

- Citi, one of the world's largest banks, [sees Israel as a central player](#) in financial-technology innovation and technology.
- International cooperation with [the US](#), [Australia](#), [Germany](#) (a broader scope) and with [the UK](#) (also [here](#))
- Foreign companies involvement:
  - [Santander InnoVentures seeks out Israeli FinTech innovation](#)
  - [Barclays to launch accelerator in Israel](#)
  - [The Hong Kong partnership](#)

### Israeli activity

- [Israeli FinTech investment in Hong Kong](#)
- [Israeli FinTech rock stars](#)
- [4 Israelis among '100 most influential FinTech leaders'](#)
- [BankAPP2 competition](#)

- [FinTech Aviv](#) - FinTech Aviv's mission is to gather the Israeli minds in the FinTech industry, including innovators, investors, entrepreneurs and experts, all together in the same space.