

# THE LIFE SCIENCES INDUSTRY IN ISRAEL

A SHORT GUIDE TO YOUR NEXT BEST INVESTMENT



The Foreign Investments  
and Industrial Cooperation Authority

[INVESTINISRAEL.GOV.IL](http://INVESTINISRAEL.GOV.IL)



## THE ISRAELI INVESTMENT PROMOTION AGENCY

**I**nvest in Israel is an integrative body within the Ministry of Economy and Industry that serves as a one-stop shop for a wide range of potential and existing investors. Invest in Israel identify lucrative investment opportunities, map potential obstacles and help fast-track investment.

**Our advantage** lies in our ability to bridge between private client needs and to promote activities within the framework of the government.



### Foreign Investment Promotion

Forward-thinking conferences and delegations with key figures, businesses and government officials



### Investor Guidance

Expert sector managers that leads potential investors from initial interest to successful investments



### Post- Investment Support

Providing ongoing assistance to overcome challenges, bureaucratic obstacles, expanding operations and promoting conducive environment for foreign investors

# WHERE COMPANIES COME TO SHINE

# THE LIFE SCIENCES INDUSTRY IN ISRAEL

A SHORT GUIDE TO YOUR NEXT BEST INVESTMENT



# A GLIMPSE INTO ISRAEL

## AREA

22,072 km<sup>2</sup>

## POPULATION

8,765,700

## CAPITAL

Jerusalem

## MAJOR CITIES

Jerusalem

Tel Aviv-Jaffa

Haifa

Be'er Sheva

All data refers to 2018





## TIME ZONE

GMT + 2 HOUR

## OFFICIAL LANGUAGES

Hebrew | Arabic | English\*

## URBAN POPULATION

92.3%

## CURRENCY

New Israeli Shekel (NIS)

## GDP <sub>(ppp)</sub>

\$37,175

## UNEMPLOYMENT RATE

4.8%

\* Though not specified by the law, English is widely used both officially and unofficially.



# A STABLE ECONOMY

FITCH

RATING

**A+**

OUTLOOK

**STABLE**

MOODY'S

RATING

**A1**

OUTLOOK

**STABLE**

STANDARD &  
POOR'S

RATING

**A+**

OUTLOOK

**POSITIVE**

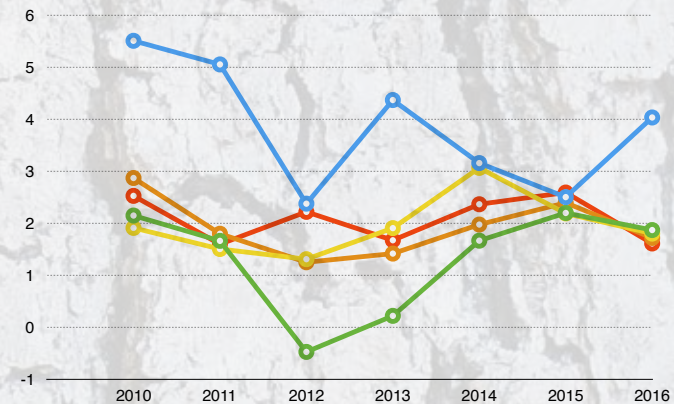




Israel has one of the strongest and most technologically-advanced economies in the world, with a resilient, diverse and open market.

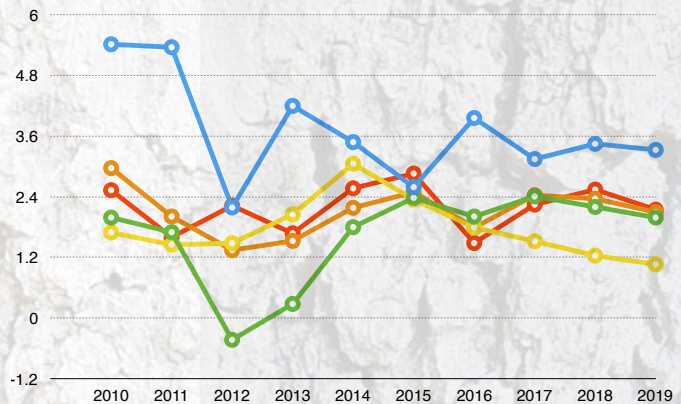
The most recent global financial crisis in 2008-9 led to a brief period of recession in Israel, but the country's prudent fiscal policies and regulations, combined with a particularly robust banking sector, allowed the economy to recover quickly – faster than other advanced economies worldwide.

## GDP GROWTH RATE (%)



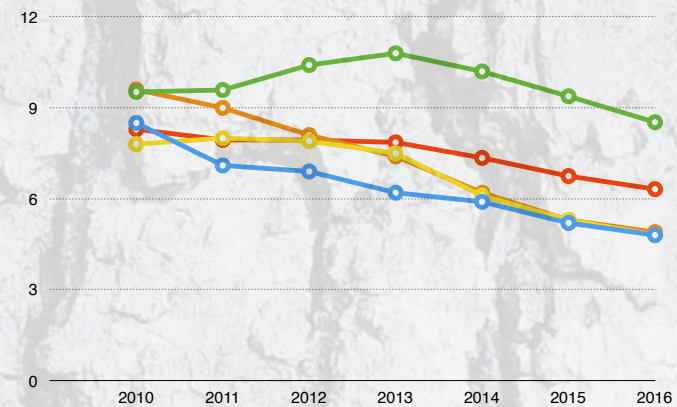
SOURCE: The World Bank

## REAL GDP FORECAST



Source: World Bank

## UNEMPLOYMENT RATE (%)



SOURCE: The World Bank



# GLOBAL LIFE SCIENCES TRENDS







## **CONTINUED MERGERS AND ACQUISITIONS AMONG COMPANIES IN THE INDUSTRY**

There is a significant wave of mergers and acquisitions among companies in the life sciences industry that is shaping the industry and is expected to continue to do so in the future. Mergers and acquisitions are not limited to entire companies, and in recent years, leading companies in the field have purchased divisions within other companies.

## **TRANSITIONING TO DIGITAL HEALTHCARE**

Transitioning to digital healthcare solutions reduces costs for healthcare providers, improves health-related objectives among patients, and increases the revenue of companies

in the life sciences industry. The digital healthcare segment is expected to lead a revolution in life sciences in the coming years, especially due to the many possibilities it presents for the industry. These include smart monitoring devices, remote healthcare technology (TeleHealth), electronic health records, and more.

## **INCREASINGLY RIGID REGULATORY ENVIRONMENT**

The regulatory environment in the life sciences industry has become increasingly rigid in recent years. Regulatory policies are constantly changing and tend to place strict restrictions on companies, thus increasing product development costs. This presents challenges for new and existing companies in the industry.

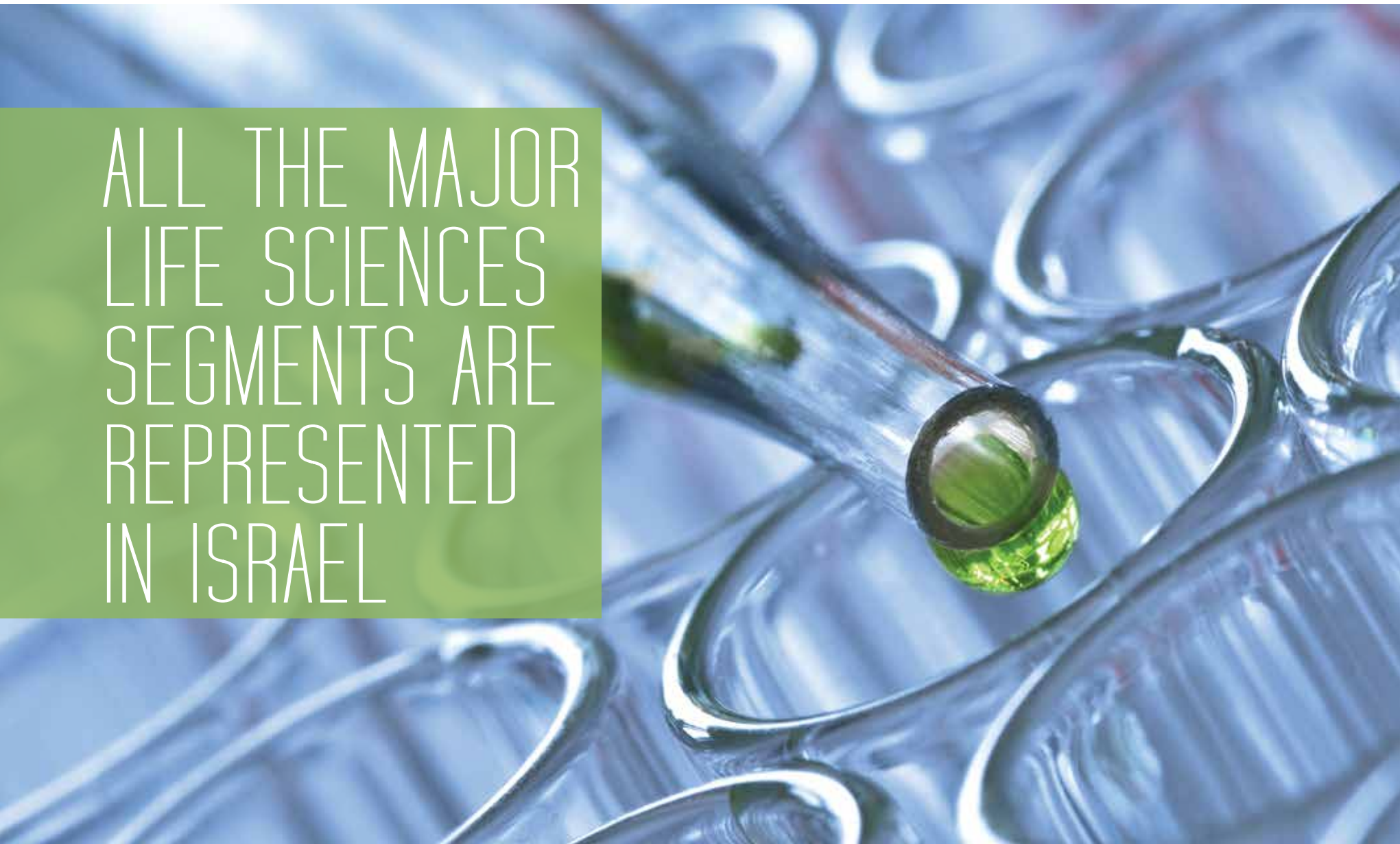
## **DEVELOPMENTS IN PERSONALIZED MEDICINE**

As genetic sequencing technologies develop and knowledge on human genome function expands, companies are likely to develop products and drugs that are customized to the patient's specific illness or to the patient's individual genome

## **CHANGES IN PRICING MECHANISMS**

Governments and insurance companies are striving to reduce healthcare costs and transition to value-based payment systems. This puts pressure on life sciences companies to reduce prices, prove the efficiency of their products compared to other companies, and modify their pricing mechanisms.

ALL THE MAJOR  
LIFE SCIENCES  
SEGMENTS ARE  
REPRESENTED  
IN ISRAEL



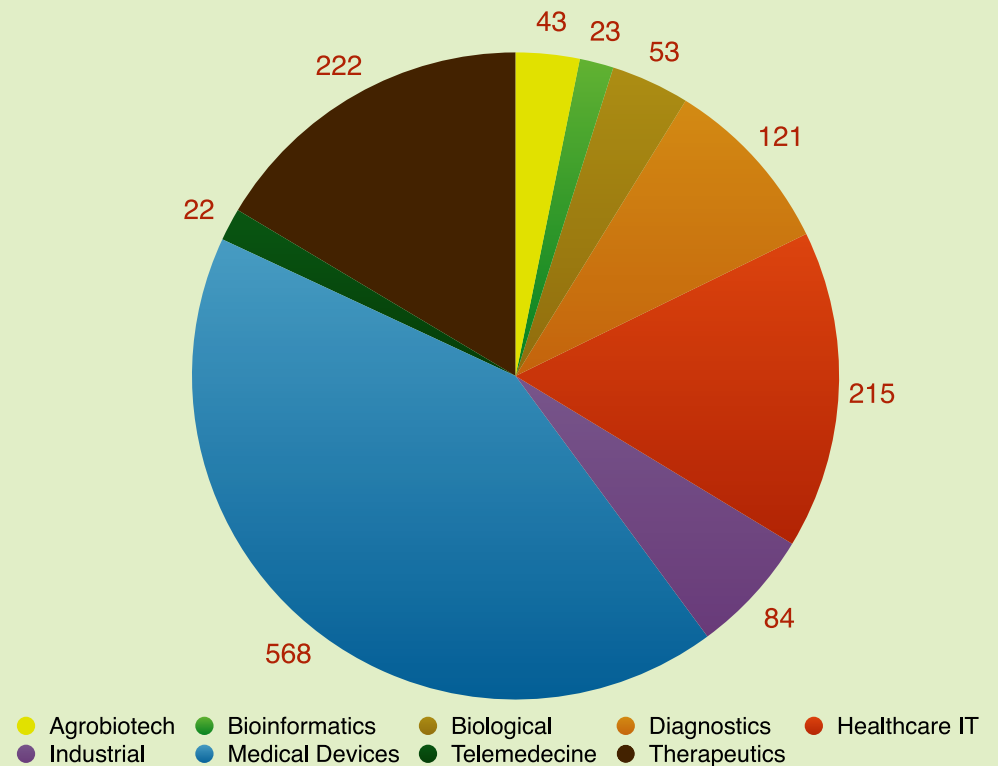




The Israeli life sciences industry is highly vibrant and dynamic. This is evident in the number of companies that have been founded in the last decade, capital raised by companies in the industry, changes in the sizes of deals, and the diverse company development stages in which investments are made. The industry engages in diverse and professional research, as is evident from the extent of academic publications in the field. It benefits from commercialization companies that operate in Israel, as can be seen by the number of patent applications that they submit.

Between 2007 and 2016, the number of life science companies in Israel grew significantly reaching a total of 1351 companies.

Most life science companies (91%) were founded during that decade. Approximately 38% of the companies founded between 2014 and 2016 develop digital healthcare products.



SOURCE: IATI

## MEDICAL DEVICES

Medical devices is a leading segment in the Israeli life sciences industry, and is especially known for its diverse development activity and exports. Approximately 42% of the life science companies are in the field of medical devices, and the majority of the companies in this category are currently in the early (seed and R&D) stages of their lifecycles.

The success of the medical devices segment is an outcome of Israel's success as a hi-tech superpower and as an incubator for daring ideas, innovation, and advanced development capabilities. In addition, it enjoys the support of external contributors such as government and private organizations that provide monetary support and consulting for various companies in the field. Furthermore, this segment typically has a lower-than-average business risk index.

Israel is considered a leader in the development of medical devices.

Commercialization companies In Israel filed 509 original patent applications in 2015, and were involved in setting up 53 startup companies. The dominant fields of original patent applications were biotechnology (25%), medicine (15%) and physics, electronics and electro-optics (14%).

Israel is not only a leader in medical devices development, but also in manufacturing and exporting these devices, showing consistent growth in revenue each year.

According to Israel Export and International Cooperation Institute (IEICI), pharmaceutical product exports from Israel in 2016 reached \$6.9 billion (out of \$44 billion of industrial export from Israel), an increase of 1.5% compared to 2015.

Leading Israeli companies in the field include: Syneron Candela, Mazor Robotics, ReWalk Robotics, MediWound Ltd., Itamar Medical Ltd. and others.









## DIGITAL HEALTHCARE

The digital healthcare and healthcare IT segment in Israel is a rapidly growing part of the Israeli life sciences industry, and the number of companies in this segment has been growing consistently for several years, reaching over 200 companies.

The Israeli industry includes companies that engage in nearly all areas of digital healthcare. The largest number of companies in this industry specializes in analytics / big data, personalized medicine and administration. In addition, when segmenting the industry by field in medicine, it is apparent that the largest medical categories in the digital healthcare industry are neurology, psychology, cardiology, genetics, geriatrics, gynecology, obstetrics and diabetes.

While the majority of companies in the traditional life sciences industry in Israel develop products for service providers, a large number of Israeli companies in this segment develop products that target consumers directly. 65.4% of the companies in the field develop products geared directly to customers (B2C – Business to Customer), or directly to customers via an additional service provider (B2B2C – Business to Business to Consumer).





Although 78% of Personal Health Tools companies are in early stages of funding (40% pre-seed, 38% seed), the products of almost 80% of companies in this subsector are fully developed (50%) or in alpha/beta stages (27%).

For many years, Israel has been implementing policies that include government investments in the digital healthcare segment. Israel was one of the first countries in the world to integrate electronic medical records into its systems and to introduce connectivity between its various nationwide healthcare systems. Collaboration with government organizations is one of the main strengths of the local industry. The Ministry of Health leads a digital-health-based program that aims to improve processes and quality of treatment while reducing expenses. The program is based on the digital healthcare startup industry in Israel and is expected to significantly change the Israeli healthcare system.

Leading Israeli companies in the field include: CliniWorks, Starlims, and Hello Heart, among others.

## PHARMACEUTICALS

Israel is home to companies and commercialization organizations throughout the entire medical value chain – from development to manufacturing.

According to Israel Export and International Cooperation Institute (IEICI), pharmaceutical product exports from Israel in 2016 reached \$6.9 billion, an increase of 1.5% compared to 2015. pharmaceuticals provided a significant part, about 30%, of overall industrial high-tech exports.





## 1. RESEARCH AND DEVELOPMENT

Israeli academia is heavily involved in the life sciences industry and the pharmaceuticals segment, and commercialization companies play an important role in this process.

## 2. PRODUCTION

**Generics** – half of the pharmaceutical companies in Israel develop generic drugs. Leading Israeli companies in the field include *Dexcel*, *Unipharm* and *Teva*.

*Teva Pharmaceutical Industries* is the largest life sciences company in Israel and the largest generics company in the world. Teva develops, manufactures and markets its products worldwide. The company's business includes a wide range of chemical, biological, generic and biogeneric compounds. Company sales in 2015 totaled \$19.5 billion and the company employed 42,888 people.

In addition to Teva, many multinational companies are active in the generic drug industry in Israel, including *Perrigo Corporation* and others.

**Original drugs** – There are several original drug manufacturers in Israel, including *Enzymotec*, which develops and manufactures therapeutic compounds, and *Protalix*, which develops and markets biological compounds.

## 3. MARKETING AND DISTRIBUTION

Drugs in Israel are imported, marketed and distributed by Israeli companies and by international ones that have established branches in Israel for this purpose.

There are several Israeli pharmaceutical companies such as *Neopharm Israel* and *Lapidot Medical* of the *Lapidot Group*.

Many MNCs in Israel engage in various fields of business, including marketing and distribution. *Novartis Israel* is a part of the giant global pharmaceutical corporation and employs approximately 180 people in Israel. The company markets and sells various types of drugs, and is responsible for advancing many studies.



# WHAT LIES BENEATH THE ISRAELI LIFE SCIENCES INDUSTRY'S SUCCESS





# 1 LOCAL SPIRIT OF ENTREPRENEURSHIP

Israel is situated in a tumultuous geographic region, and therefore cannot depend on business and trade via its land borders. This, combined with Israel's lack of natural resources, produced a self-reliant society that encourages innovation and fosters the ground-breaking ideas that are such an inherent part of Israeli culture.

As a multi-cultural immigration country, Israel is home to a population

with diverse cultures and perspectives that facilitate a flow of ideas and collaborations between individuals with differing points of cultures.

The innovative spirit is cultivated from a very young age. Israeli society views failed attempts as educational phases from which people can learn, and not as something to be ashamed of, as is so common in other countries around the world.

These processes enhance creativity and easily explain how Israel ranks as the third most innovative nation in the Global Competitiveness Report.

## 2 ACADEMIA

Israel's academic institutions have contributed greatly to establishing and developing the local technology market. According to OECD data, Israel ranks third worldwide in percentage of the population with academic degrees: 49% of the population has an academic degree and approximately one-third of these graduates hold degrees in engineering and technological fields.

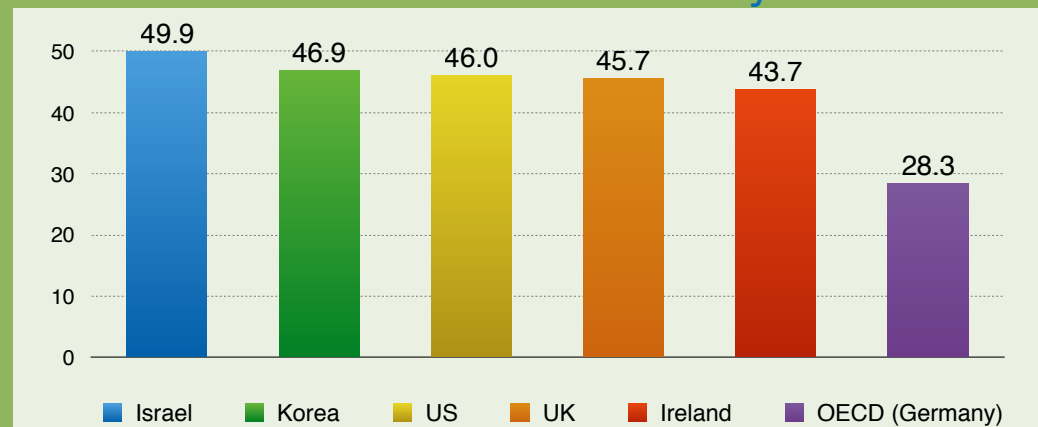
Israel is ranked third for the quality of its scientific research institutes and leads the category for percentage of researchers (number of R&D scholars in relation to the population).

The flow of knowledge from the academic institutions, combined with the migration of excellent students and researchers from the academic institutions to the private-commercial sector, guarantee the success of the industry.

The activities in the various segments of the life sciences industry represent some 50% of the civilian research conducted at Israel's seven universities, ten research centers, and five schools of medicine. Israel has one of the world's highest concentrations of scientists per capita (145 for every 10,000 citizens), and one in three Israeli scientists specialize in some aspect of life sciences.

The number of publications in the life sciences industry is one of the parameters for academic excellence in the field: 45% of scientific articles published in Israel between 2007 and 2011 were related to life sciences. Specifically, 23% of the scientific publications were on clinical medicine.

### ADULT EDUCATION % of 25 - 64 year-olds



Source: OECD





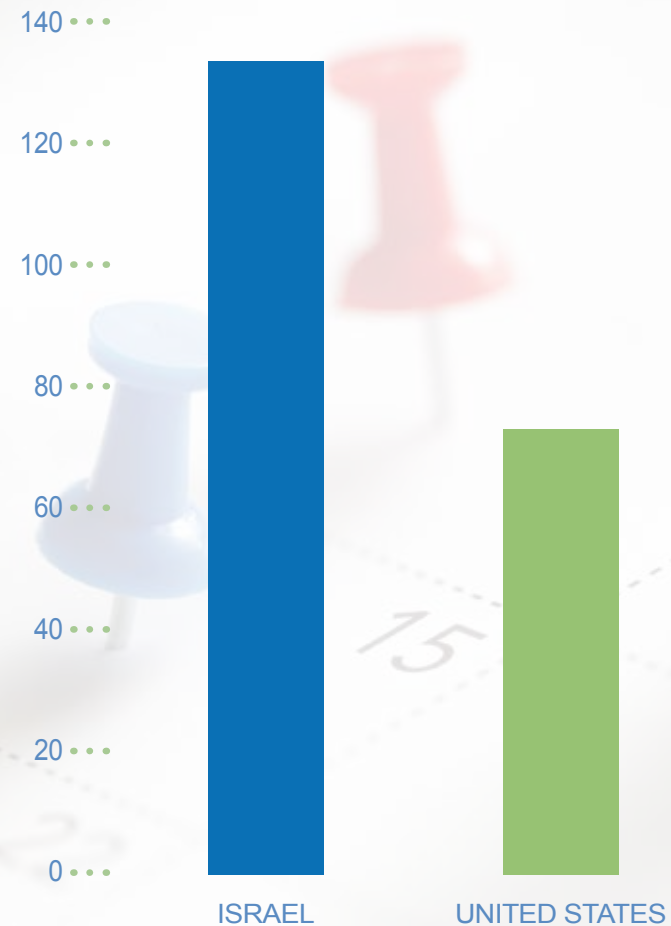
**No. 1**

**in Research Talent**

**No. 1**

**in Digital/  
Technological Skills**

## ENGINEERS PER 10,000 PEOPLE



Source: OECD Data



## 3 MULTINATIONAL COMPANIES

There are currently over 300 R&D centers in Israel, operated by leading international companies such as Apple, Google, Intel, Microsoft, HP, IBM, eBay, and many more.

The presence of foreign companies in Israel has contributed greatly to economic growth and has a positive impact on employment, productivity, and knowledge flow as skilled employees switch to local companies.

Productivity rates in multinational companies in Israel are higher than in other advanced countries such



as France, Germany and England. Foreign companies also promote overall investments in R&D: a 1% increase in R&D expenditure in foreign companies results in a 0.27% increase in spending on R&D in locally-owned companies. Moreover, in 2015, the total expenditure on R&D in multinational R&D centers in Israel constituted 47% of the total expenditure on business R&D. These two factors mutually benefit both the multinational companies and the local market, promote growth and inspire the work environment as a whole.





## 4 GOVERNMENT INVESTMENTS

Over the past several decades, Israel has been a world leader in national investment in research and development when calculated as a percentage of the GDP, maintaining a steady average of 4.2%, far above the OECD average of 2.3%. This steady investment over time is proof of a government policy aimed at encouraging entrepreneurship and facilitating the growth of new ideas.

The Israel Innovation Authority subsidizes R&D expenses of start-ups (up to 75%) as well as large companies, with some programs tailored specifically for cooperation with foreign multinationals. In addition, incubator plans are developed

into technological initiatives that help entrepreneurs who are just starting to transform their ideas into commercial businesses. Government-supported research centers maintain ongoing relationships with the private-commercial sector by sharing information and human resources and helping the domestic ecosystem to flourish.

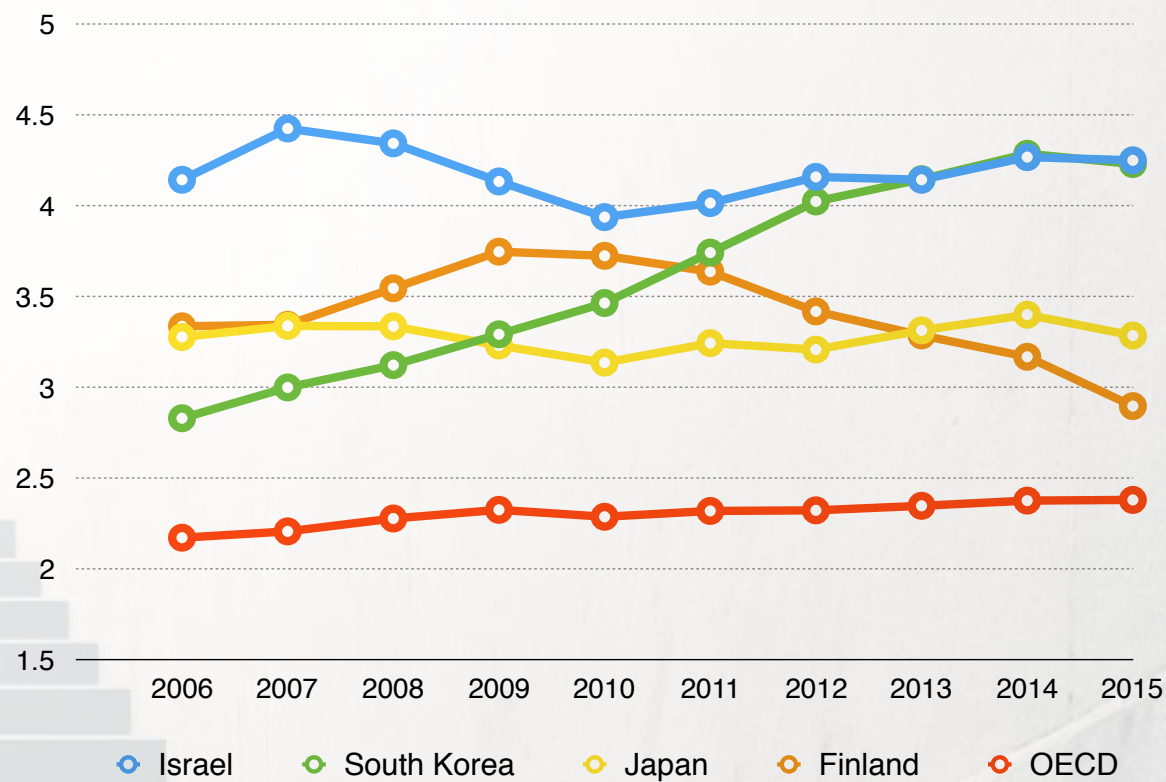
The Israeli government created a support network for R&D activities in the life sciences industry. Between 2005 and 2014, the Israel Innovation Authority channeled approximately 25% of its facilitation budgets to life sciences. In numbers, the Israel Innovation Authority contributed over NIS 250 million to the industry each year between 2000 and 2014 through its various facilitation programs.

Source: OECD





## EXPENDITURE ON R&D AS A PERCENTAGE OF THE GDP, 2006-2015



Source: OECD

A close-up photograph of two men in business suits shaking hands. The man on the left is wearing a dark blue suit and a blue tie with white polka dots. The man on the right is wearing a dark red suit. A green horizontal bar is overlaid on the image, containing the text 'JOIN THE BEST'. In the bottom left corner, there is a white rectangular box containing the text 'THERE'S A REASON WHY SO MANY LIFE SCIENCES COMPANIES DO BUSINESS IN ISRAEL.'.

JOIN THE BEST

THERE'S A REASON WHY  
SO MANY LIFE SCIENCES  
COMPANIES DO BUSINESS  
IN ISRAEL.





DON'T ASK US. ASK THEM.



**Abbott**



Edwards



GE Healthcare



Dentsply  
Sirona

Johnson & Johnson

**Perrigo**

**ThermoFisher**  
SCIENTIFIC

**PHILIPS**

**FOSUNPHARMA**  
复星医药

**Carestream**  
Medical Imaging Solutions

**IBM**

**ESSILOR**  
SEEING THE WORLD BETTER



NOVARTIS



Biosense Webster®  
a Johnson & Johnson company



**BD**

**McKESSON**

Empowering Healthcare



**MERCK**  
SERONO



**Medtronic**

Alleviating Pain • Restoring Health • Extending Life

\* Partial list



# ISRAEL IS PRO-BUSINESS. YOUR BUSINESS.

The Ministry of Economy and Industry offers countless programs and services designed to simplify the investment process. The wide range of governmental incentives and grants makes Israel the perfect place for foreign investors to shine.



## THE GOVERNMENT OF ISRAEL OFFERS AN ASSORTED RANGE OF INCENTIVES IN THREE MAIN CATEGORIES

### INVESTMENTS AND MANUFACTURING

Investment grants  
& tax benefits for  
investors

### INDUSTRIAL R&D

Various programs  
that support  
Industrial R&D

### EMPLOYMENT

Employment subsidies  
& vocational training  
programs



## INVESTMENTS AND MANUFACTURING INCENTIVES

	CENTER OF ISRAEL	PRIORITY AREA
Reduced corporate tax rate - priority enterprise (special priority enterprise)	16% (8%)	7.5% (5%)
Reduced dividend tax rate (special priority enterprise)	20% (15%)	20% (15%)
Investment grant		Up to 30%
Innovation box for IP based companies (consolidated revenues of over NIS 10b)	12% (6%)	7.5% (6%)

\* The regular Israeli tax rates are 24% for business and 25% for dividend.



## EMPLOYMENT INCENTIVES

	CENTER OF ISRAEL	PRIORITY AREA
"High Salary" sub-track	NA	10% - 25% of the wage cost for 48 months, with a maximum monthly wage of \$7,500.
Special populations Ultra-Orthodox, ethnic minorities, individuals with disabilities, single parents	10%-37.5% of the wage cost, with a maximum monthly wage of ~ \$4,000.	10%-37.5% of the wage cost, with a maximum monthly wage of ~ \$6,000.
Minorities in knowledge based industries	30% - 40% of the wage cost for 24 months with a maximum monthly wage of ~\$3,000.	30% - 40% of the wage cost for 24 months with a maximum monthly wage of ~\$3,000.



## R&D INCENTIVES

	GLOBAL ENTERPRISE COLLABORATION PROGRAM	BILATERAL & MULTILATERAL INDUSTRIAL R&D
<b>Target</b>	Encourage the creation of MNC-Startup partnerships in Israel.	Encourages international collaborative R&D between Israeli and foreign companies.
<b>Incentives</b>	The Israel Innovation Authority will support the Israeli startup company with a conditional grant ranging between 20%-50% of the approved development budget	Public funding is usually 50% of the approved project.
<b>Qualifications</b>	Criteria for MNC: Annual revenues over \$2 billion; Significant investment in R&D; Global presence.	According to fund criteria.
<b>Other</b>	The MNC can invest in cash and/or in kind, i.e. technological guidance, using labs, discounted software licenses, regulatory advice, etc.	40 bilateral and multilateral industrial R&D support agreements, as well as participation in 5 multinational European programs.





	R&D FUND	OTHER R&D SUPPORT
Target	To promote R&D by lowering the company's risk.	Establishing and expanding the activity of multi national companies in the fields of biotechnology and Healthcare in the State of Israel
Incentives	Subsidizing up to 50% of the project's cost (60% in priority areas) .	Financial support at 20% - 40% of the expenses as approved for an R & D plan. The overall scope of the grant shall not exceed 50 milion NIS.
Qualifications	Approved by a professional committee of the Israel Innovation Authority.	Annual revenues over \$2 billion. The controlling shareholder of the bidding company is, directly or indirectly, a foreign corporation.
Other	If the company commercializes the technology or product and generates profit, royalty payments need to be made. Otherwise, not.	Concession to submit R&D plans under the framework of the benefit plan for a period of five years

# WHAT WE CAN DO FOR YOU

Israel  
Investments  
Authority  
for Industry  
& Economy  
Development

Population &  
immigration  
authority

Fuel choices  
initiative

Administration  
of industrial  
zones

Foreign trade  
administration

Israel tax  
authority

Israel innovation  
authority

Israel land  
authority

Municipal  
authorities

The israel  
export &  
international  
cooperation  
institute





MAKING THE DECISION TO INVEST IN A NEW LOCATION CAN OFTEN BE DIFFICULT, CONFUSING AND FRUSTRATING. THERE ARE SO MANY THINGS TO TAKE INTO ACCOUNT, AND SO MANY DIFFERENT OPTIONS TO CONSIDER. AT *INVEST IN ISRAEL*, WE OFFER A WIDE RANGE OF SERVICES TO SUPPORT AND OPTIMIZE YOUR BUSINESS IN ISRAEL. IN FACT, WE'LL WALK THROUGH EVERY STEP OF YOUR INVESTMENT, TOGETHER.

## FROM PROPERTY TO WAGES TO TAXES, WE'LL PROVIDE YOU WITH ALL THE INFORMATION YOU NEED.

Starting a new operation in a new location requires a myriad of information, and you know as much as we do that every detail counts. We'll help you understand every aspect of your journey here in Israel, from the smallest issue to the biggest problem. Laws, regulations, locations, taxes, incentives and costs — we have it all figured out.

## FEEL AT HOME, FROM DAY 1.

No need to feel like the new guy. We can introduce you to peer companies and key figures in your industry, so you can easily facilitate your network of connections. Join the best companies in the world, in the most innovative ecosystem on earth.





# LET'S CONNECT



## A VISIT IS WORTH A 1,000 WORDS. COME SEE FOR YOURSELF.

There's nothing like an actual tour to help make a decision, and Israel has so much to offer for potential investors. We invite you to come to Israel and see why so many companies have made Israel their innovation center. Meet the people, see the locations, hear the stories.

Visit Israel. It's your first step towards your best investment.

## LET'S TALK, LET'S MEET.

You can schedule a meeting, give us a call or leave your details at our website, and we'll get back to you. You can also meet our global experts in your region. We are here to make it your easiest investment yet.



## THE FOREIGN INVESTMENTS & INDUSTRIAL COOPERATION AUTHORITY

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The information included in this guide is relevant for January 2018. The content included is intended to provide only a general outline of the subjects covered and it is necessary that specific professional advice be sought before any action is taken.







