THE AUTOMOTIVE INDUSTRY IN ISRAEL

A SHORT GUIDE TO YOUR NEXT BEST INVESTMENT

INVEST IN ISRAEL
MINISTRY OF ECONOMY AND INDUSTRY STATE OF ISRAEL

The Foreign Investments
and Industrial Cooperation Authority

INVESTINISRAEL.GOV.IL

INVEST IN ISRAEL

MINISTRY OF ECONOMY AND INDUSTRY
STATE OF ISRAEL

THE ISRAELI INVESTMENT PROMOTION AGENCY

Invest 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 conductive environment for foreign investors

WHERE COMPANIES COME TO SHINE

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A GLIMPSE INTO ISRAEL

AREA
22,072 km²

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%

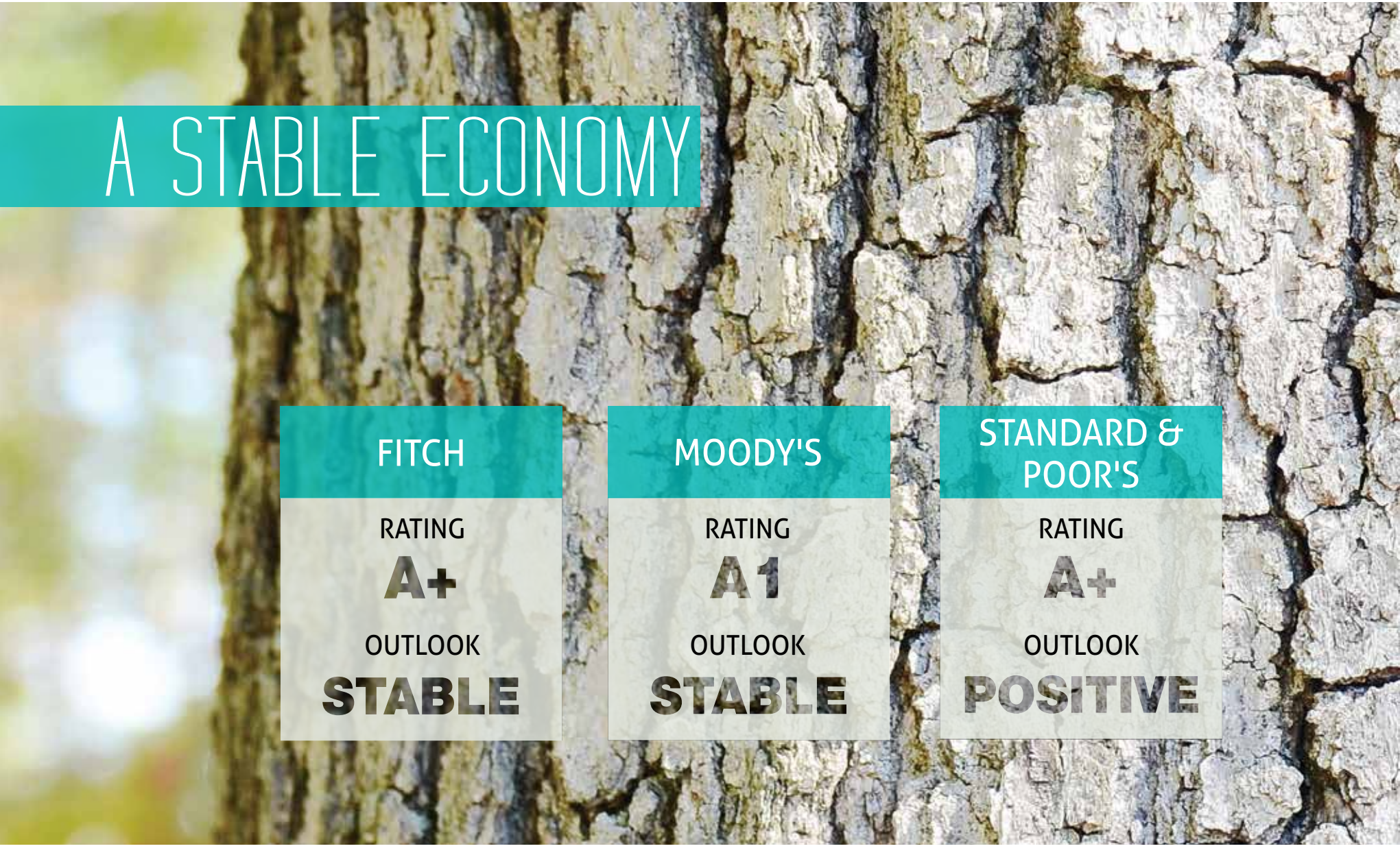
CURRENCY
New Israeli Shekel (NIS)

GDP (ppp)
$37,175

UNEMPLOYMENT RATE
4.8%

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

A STABLE ECONOMY

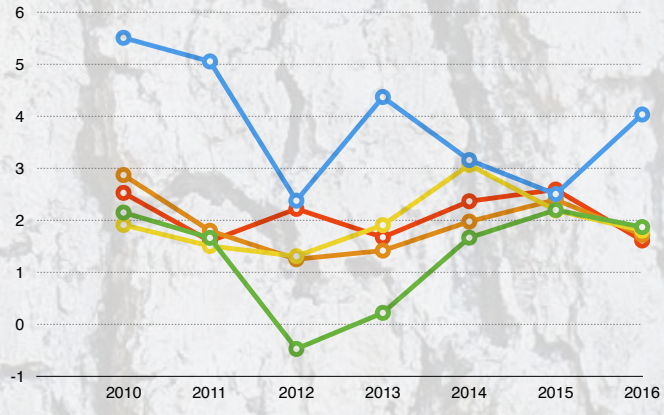


FITCH	MOODY'S	STANDARD & POOR'S
RATING	RATING	RATING
A+	A1	A+
OUTLOOK	OUTLOOK	OUTLOOK
STABLE	STABLE	POSITIVE

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.

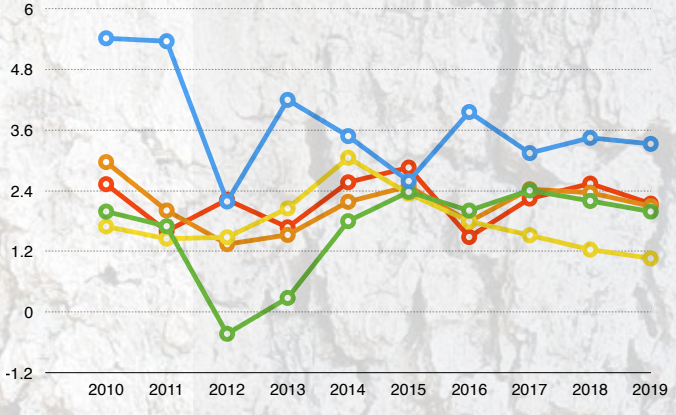
GDP GROWTH RATE (%)



SOURCE: The World Bank

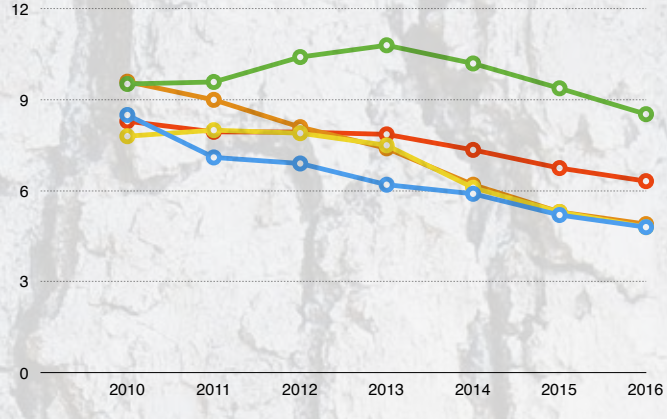
Israel
European Union
United Kingdom
OECD
United States

REAL GDP FORECAST



Source: OECD

UNEMPLOYMENT RATE (%)



SOURCE: The World Bank

GLOBAL AUTOMOTIVE TRENDS

WHERE THE WORLD IS HEADING – ISRAELI COMPANIES ARE LEADING THE WAY

1 POLLUTION REDUCTION AND GREEN VEHICLES

This trend is evident both in regulatory changes in various countries, and in technological developments. From the regulatory perspective, automotive standards have become more rigid, and requirements to meet fuel consumption and pollutant emission targets have been introduced (e.g., Euro6 in Europe and CAFE in the US). From the technological perspective, this trend includes the following:

Reducing Vehicle Weight

The use of alternative materials to manufacture certain automotive parts, in order to lower vehicle weight, reduce fuel consumption, and limit pollutant emissions.

The demand for these products is constantly increasing. According to the US Energy Administration, reducing vehicle weight by 10% can reduce fuel consumption by 6%–8%. However, the use of alternative materials for vehicle production is limited by the regulator (for reasons such as safety and reliability) and by consumer preferences. This creates the need to develop alternative materials that can effectively replace iron and steel, such as magnesium and carbon fibers that can potentially reduce the weight of certain vehicle parts by up to 75%.

Several Israeli companies are currently in advanced stages of manufacturing vehicle components, using plastic, aluminum, various alloys (e.g., magnesium and zinc), and more. These companies include Raval, Tadir-Gan, MPE, Omen Casting Group and Arkal.

Alternative Propulsion Systems

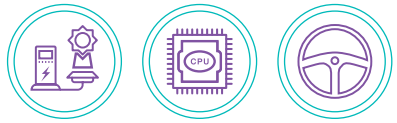
The use of different types of motors and fuels, which can replace the traditional polluting propulsion systems that operate on diesel and petrol.

Highly pollutant propulsion systems and new rigid regulations led various automakers to develop alternative propulsion systems that use fuels other than diesel and petrol. These systems include electric ignition, the use of natural gas and liquid hydrogen, and more. Vehicles that use propulsion systems of this kind have been manufactured in the past and some are currently in use on a relatively wide scale. However, the existing solutions suffer from several significant disadvantages compared to the traditional propulsion system, such as high cost, storage difficulties, short driving range and lack of infrastructure. Work is underway to develop a propulsion system with advantages over oil-based ignition that overcome these disadvantages.

In Israel, the Israel Fuel Choices Initiative at the Prime Minister's Office has signed agreements with Fiat Chrysler, Iveco and Magneti Marelli to develop natural gas-based fuels, which may be the basis for international cooperation.

2 INFORMATION TECHNOLOGY IN VEHICLES

Additional technological developments, particularly in communications and software technology, have resulted in the increasing integration of sophisticated components in vehicles. These developments are designed to improve driving safety, enable vehicles to communicate with other nearby devices, support advanced analyses, and more. Trends in this field include:



Driver-assistance systems

Systems that incorporate features such as sensors, cameras and warning devices to alert the driver to potential threats on the road and facilitate certain driving functions.

These include systems that alert drivers of deviations from their lane, or of their likelihood of colliding with another object, parking assistance, traffic light identification, and more. Other systems include human-machine interfaces that are based on voice commands, eye movement detection, and pop-up displays, and attempt to help the driver perform certain actions remotely. Israeli companies such as Mobileye, VocalZoom, Redbend and Guardian Optical Technologies are developing advanced products designed to assist drivers and reduce the risk of road accidents.

Smart transportation

Integrating software and advanced communication capabilities in vehicles in order to connect multiple vehicles, infrastructure and external devices.

This communication helps reduce road collisions, plan an optimal route, detect changing traffic lights, and even warns the driver of dangerous vehicles in the vicinity. Related technological perspectives are still being developed, as are the regulatory aspects of these developments. For example, opening additional communication channels for the vehicle to use to communicate with its environment can also increase the risk of malicious breaches of the system. In addition, communication between vehicles and infrastructure will require modification of the infrastructure itself. This is a complex and costly process, which will require suitable funding.

Information security

Systems aimed to protect the vehicle's multiple software and communications systems of malware and and penetrations.

The risks created following new advanced systems incorporated into new vehicles have triggered great interest in developing information security systems for vehicles, and have even resulted in government intervention. The US National Highway Traffic Safety Administration (NHTSA) published safety guidelines for 2016, urging automakers to work together in developing information security systems for vehicles. Large automakers such as Volvo, Mercedes, Ford and General Motors (GM) have already undertaken to comply with the NHTSA guidelines.

ALL THE MAJOR AUTOMOTIVE SEGMENTS ARE REPRESENTED IN ISRAEL

The Israeli market consists of both veteran companies that specialize in vehicle assembly and Tier 1, 2 and 3 supply, engaging in traditional and advanced manufacturing processes, and companies that specialize in innovation, advanced technologies and facilitation of automotive manufacturing processes.

VEHICLE ASSEMBLY (OEM) AND TIER 1, 2 AND 3 SUPPLY

1. **OEMs:** There are several manufacturers in Israel that assemble the final automotive product. These include buses, military vehicles and others (trailers, containers, fire-extinguishing vehicles, vehicle conversion).

2. **Tier 1 aftermarket suppliers:** Over 60 Israeli companies manufacture aftermarket products for the automotive industry. These include spare parts and accessories such as batteries, ventilation and air-conditioning systems, fleet management systems, air brake diaphragms, electric starters and alternators, seals, thermostats, gears, gear pumps, bearings and motor valves, filters and more.

3. **Tier 1 OE suppliers:** Over 50 Israeli companies supply components to OEMs and Tier 1 suppliers worldwide, using advanced technologies to manufacture various types of high-quality components that are tailored to their customers' needs. These technologies include forging, high-pressure ink injection, metal injection, coating and reinforcement, rubber injection, etc.

ADVANCED TECHNOLOGIES (ELECTRONICS, SOFTWARE, INNOVATION AND DRIVER-ASSISTANCE SYSTEMS)

Many Israeli companies develop aftermarket systems and technological innovations related to autonomous driving and the automotive market. These companies design, manufacture and supply diverse products including safety and driving assistance systems, tracking technologies, navigation and control systems, inter-vehicle connectivity, cyber protection and voice recognition.

Over 450 local companies operate in the field of the smart car industry. About 17% of these companies develop autonomous driving technologies and auxiliary technologies such as sensors, radar, LiDAR technologies and more. Another 15% operate in the field of electric cars and batteries.

MANUFACTURING PROCESSES TO IMPROVE AND STREAMLINE MANUFACTURING

Over twenty Israeli companies supply services and products

that facilitate production processes for OEMs and suppliers in the various tiers. These products and services include manufacturing control software, monitoring and assessment solutions, corrosion-preventing packaging products, advanced tools for metal work, software solutions for supply chain management, 3D printing solutions for accelerated prototype design and production, and automatic welding solutions.

SMART TRANSPORTATION

The use of different types of technology to streamline travel, by making it shorter, safer and cleaner.

In most cases, the concept of smart transportation includes Intelligent Transport Systems (ITS) that use advanced technologies to achieve these goals.

Israeli smart transportation companies have become world-renowned for their achievements in this field. These companies develop products based on software innovation and cutting-edge technologies, like products developed for the automotive industry.

Smart transportation is a rapidly growing field in Israel, with the establishment of many new companies in recent years. These companies are tightening connections with large global corporations (such as IBM and General Motors) and are quickly

building their reputation in the global smart transportation market. The most noted examples are Waze and Mobileye. Waze was acquired by Google in 2013 and Mobileye was acquired by Intel in 2017. Following in their footsteps, many other companies in the field are growing and establishing international partnerships.

ALTERNATIVE FUELS

The development of fuel alternatives that are more efficient and less pollutant that the common oil-based fuels (diesel and petrol).

Recent years have shown a significant increase in the development of alternative fuels in Israel. The Israel Fuel Choices Initiative was launched in 2011, and included the establishment of a dedicated administration in the Prime Minister's Office. The administration is responsible for promoting the development and integration of fuel alternatives for transportation, in order to reduce Israel's dependency on oil for both security and sustainability reasons. The objective of this initiative is to reduce oil usage for transportation in Israel by 30% by 2020 and by 60% by 2025. The administration has signed cooperation agreements for the development of natural gas-based fuels with Fiat Chrysler, Iveco and Magneti Marelli.

ISRAELI AUTOMOTIVE INDUSTRY HIGHLIGHTS

INNOVATION, SOFTWARE LEADERSHIP AND ADVANCED TECHNOLOGIES

The Israeli industry is known worldwide for its ability to develop new, cutting-edge solutions for existing and emerging global needs. Consequently, many companies, such as General Motors and Daimler have R&D centers in Israel. GM has been active for the last ten years and since 2016 is in the process of expanding its operations in Israel. Other major international companies choose to invest and partner with Israeli based companies developing innovative technologies. An example of such investment during the year of 2017 is of the leading auto industry supplier Delphi Automotive which invested and partnered with Innoviz, a company developing LiDAR sensors to support the development and deployment of autonomous driving. In addition, companies such as Ford have permanent scouting offices in Israel, which constantly seek relevant developments. Other companies send representatives to conferences and events as well as make other visits to Israel for this purpose.

FULL PRODUCT SUPPORT

The various manufacturing companies in Israel support product development cycles from the initial design phase to final production. This is a significant capability, with unique advantages over the low cost mass production that is available in other markets.

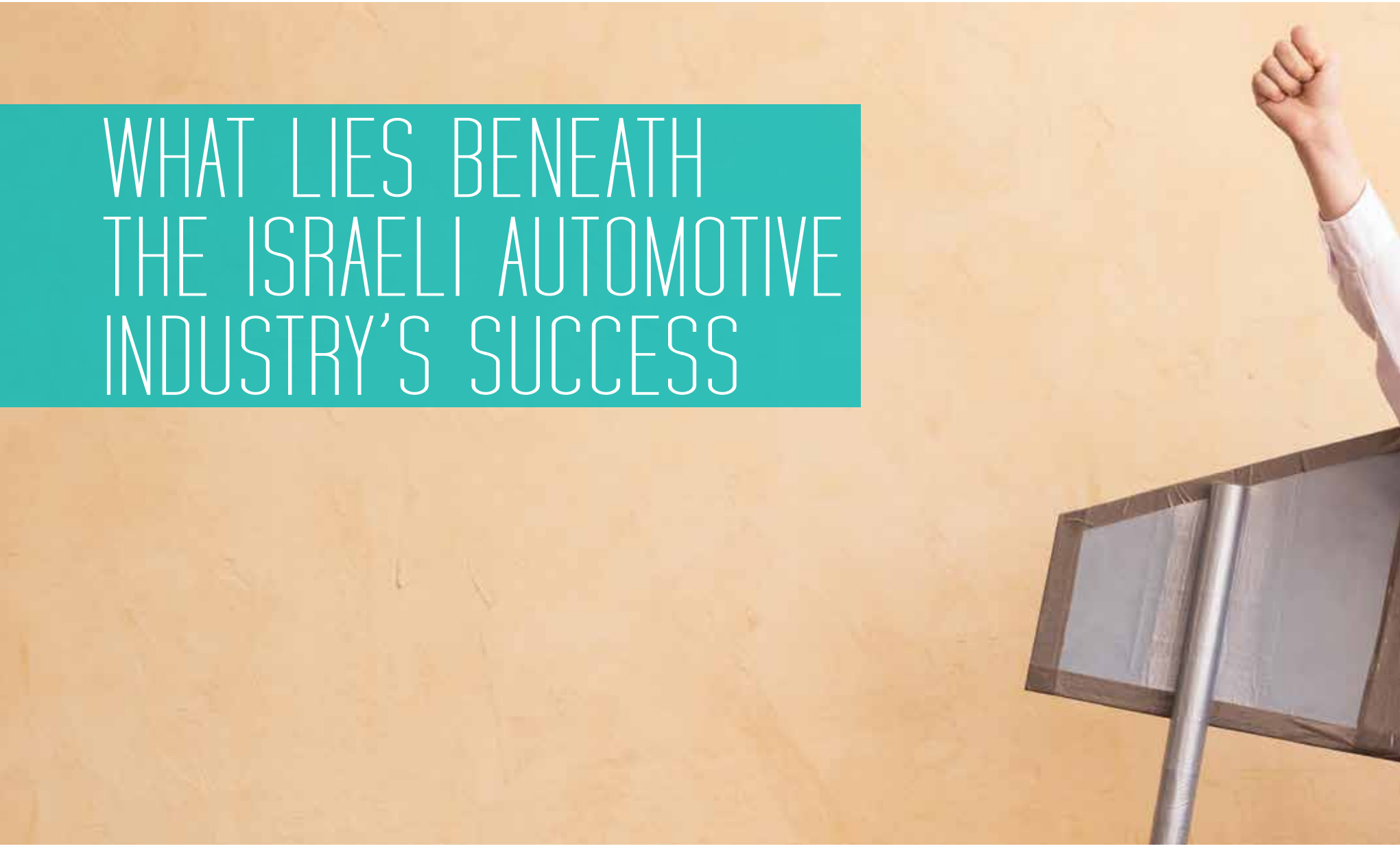
GEOGRAPHIC LOCATION

Israel is conveniently located between the Far East and western European markets. In addition, Israel has signed free trade agreements that facilitate commercial activity between it and many other countries and regions, such as the EU, US, Mercosur (countries in Latin America), EFTA (Iceland, Lichtenstein, Norway and Switzerland), Turkey, Mexico, Jordan and Egypt.

EXPERIENCE AND WORKING RELATIONSHIPS

There are many local manufacturers that have supplied components and parts to large international corporations for decades. These long-standing business relationships have built confidence and close cooperation with international companies, and are an important consideration when selecting suppliers and ordering parts.

WHAT LIES BENEATH THE ISRAELI AUTOMOTIVE 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 view.

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.

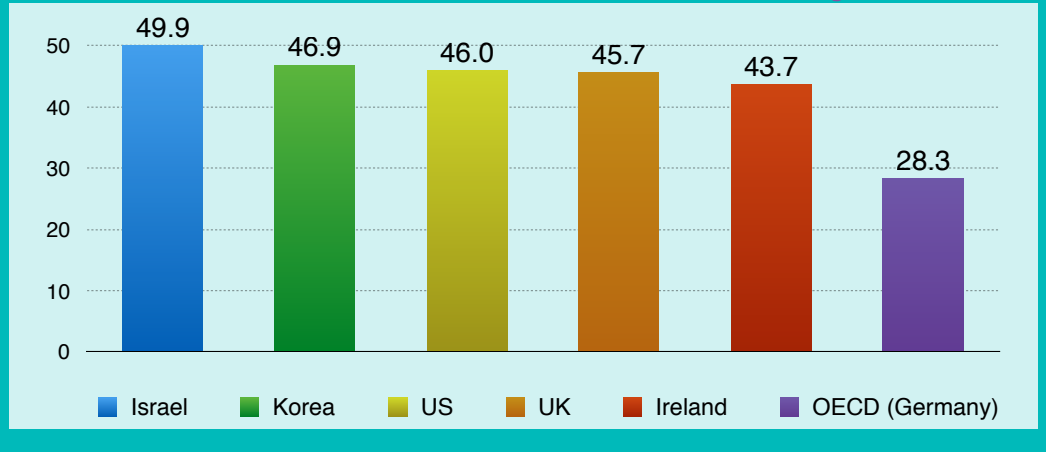
2 ACADEMIA

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.

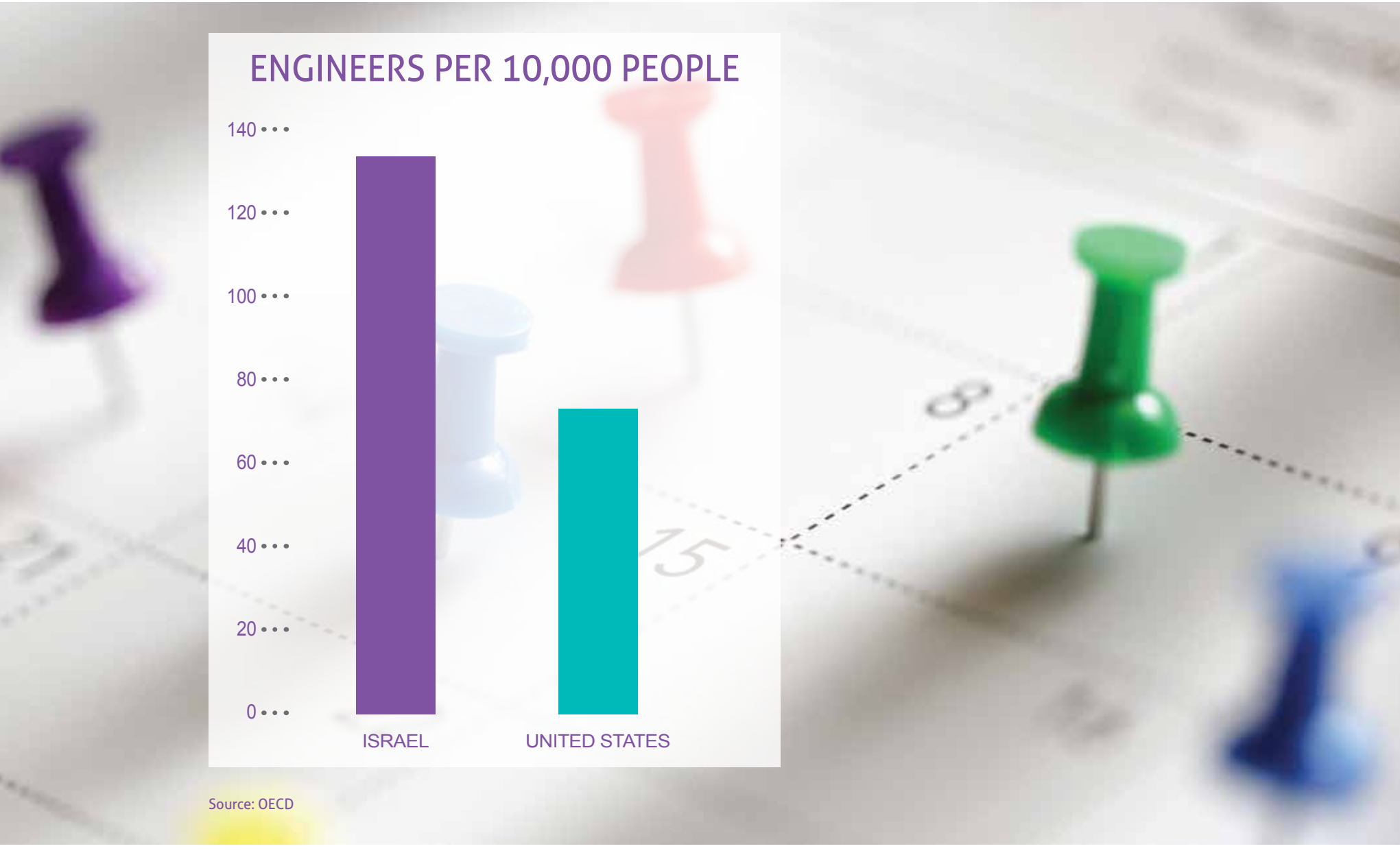
Israel is ranked third for the quality of its scientific research institutes and leads the category for percentage of researchers (number of R&D scholars in relation to the population).

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.

ADULT EDUCATION % of 25 - 64 year-olds



Source: OECD


ENGINEERS PER 10,000 PEOPLE
140
120
100
80
60
40
20
0
ISRAEL
UNITED STATES

Source: OECD

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.

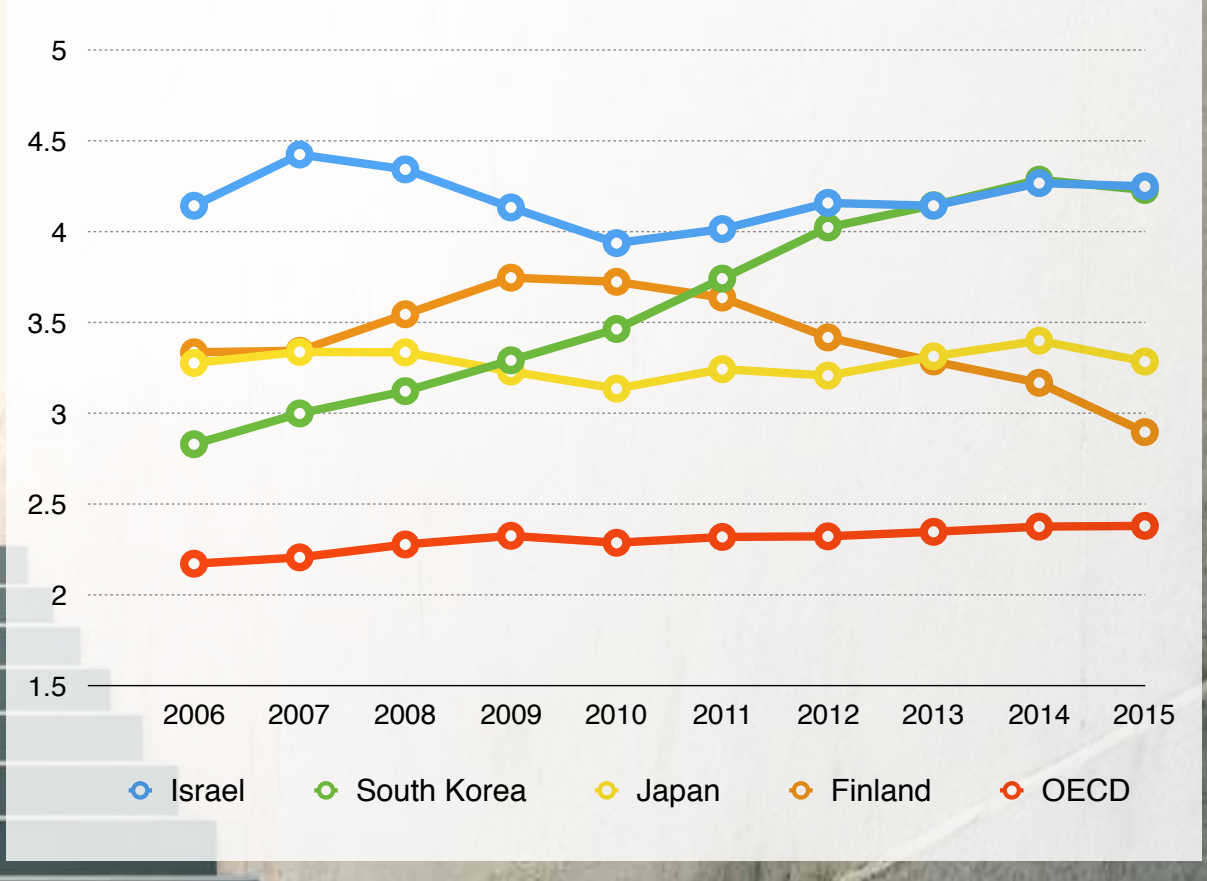
4 GOVERNMENT INVESTMENTS

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 MNCs. 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.

SOURCE: OECD

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



Source: OECD

JOIN THE BEST

THERE'S A REASON WHY SO MANY AUTOMOTIVE MANUFACTURERS DO BUSINESS IN ISRAEL.

DON'T ASK US. ASK THEM.

BOSCH

FCA
FIAT CHRYSLER AUTOMOBILES

RENAULT
Passion for life

DAIMLERBENZ

DELPHI

* 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% - 35% 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
Target	Encourage the creation of MNC-Startup partnerships in Israel.	Encourages international collaborative R&D between Israeli and foreign companies.
Incentives	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.
Qualifications	Criteria for MNC: Annual revenues over $2 billion; Significant investment in R&D; Global presence.	According to fund criteria.
Other	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.	Support early stage companies as well as the development of technological infrastructure for the Israeli industry.
Incentives	Subsidizing up to 50% of the project's cost (60% in priority areas) .	Technological Incubators - the operating licensee invests only 15% of the project budget (the state invests the remaining), and receives in return 50% of the shares of the companies in the incubator. Magnet program for generic R&D - up to 66% of its approved R&D budget.
Qualifications	Approved by a professional committee of the Israel Innovation Authority.	Technological Incubators - the licensee is elected by the Israel Innovation Authority's relevant committee. Magnet - group of companies and academia join forces to develop new generic technology. Magneton - cooperation between academia and industry for technology transfer.
Other	If the company commercializes the technology or product and generates profit, royalty payments need to be made. Otherwise, not.	Magnet project is usually approved for a 3-year period with extensions of 1-3 years possible.

WHAT WE CAN DO FOR YOU

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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