



ISRAELI INNOVATIONS – FACTS AND STATISTICS

Based on an Article by Adi Schwartz, published in Israel Week, Friday 24 Sept. 2010
(translated from Hebrew and abridged by Ed Langer, Adv. and Patent Attorney)

Israel is ranked sixth in the world in the filing of international patent applications, in per capita terms, according to data of the World Intellectual Property Organization (WIPO).

In absolute terms, Israel is ranked 15th, and it surpasses countries larger and wealthier than her such as Denmark, Australia, Norway, Russia and Spain.

In 2009, Israeli inventors filed 1600 patent applications, in comparison to 11 in Argentina, 492 in Brazil, 33 in Egypt, and 385 in Turkey.

In 2009 WIPO, the UN agency headquartered in Geneva, decided to recognize Israel as an international searching and examination authority for patents.

Some examples of Israeli Patents:

The interactive film (patented by Tel Aviv University), allowing the viewer to become part of the movie, so that the plot continues according to choices provided to the viewer.

A device pinpointing the exact time of cow ovulation, by tracking the movements of their neck (SCR company).

New communications equipment for divers (UTC company).

The first anti-virus software, the solar water heater, the disc-on-key, the cherry tomatoes and the ICQ – all of which began as Israeli patents.

Israel's place in the world – Venture Capital and R&D expenditure

In the last 20 years Israel is ranked second in the world, behind the US, in investment of venture capital.

According to indicators published by the International Center for Administration in Switzerland (IMD):

Israel is first in the world in terms of research and development expenditure as part of GNP, second in the world in terms of cooperation between academia and industry, second in the world in terms of university education and second in the world in terms of entrepreneurship.

In the years 1997-2003 for example, the number of patents in Israel in the communications field was at least twice the number in Germany, Britain and France (in per capita terms).

Israel is first in the world for the number of scientists and engineers per capita.

Israel is one of the leading countries in the number of scientific publications.

In the award of US patents, Israel is third in the world, after the US and Japan. Israel is also one of the 12 leading countries in the field of life sciences.

Leading in a significant way

"In contrast to many other organizations connected to the UN, in the patent field Israel actually wins great appreciation", says the Patent Registrar in the Israeli Justice Ministry, Dr. Meir Noam. "The creativity in Israel is prominent in an outstanding way, and the world's leading countries in the novelty field greatly appreciate us".

Dr. Noam confirms that most Israeli patents are registered by institutional organizations and companies, and only a small minority are registered by private inventors.

"The majority come from universities, from the Weizman Institute, and from the R&D departments of large companies who invest years and resources to obtain the patent".

New Israeli inventions:

A device for removal of tattoos by a new method.

Performance of invasive tests in the human body using a lens that can withstand any kind of debris in the human body (blood, tissue and fats).

An engine which can produce power from heat at a much higher level of efficiency, which can be applied as a solar collector on a car roof, to operate air-conditioning that can cool the car while it is parked.

There are also inventions for recycling tires, for solar applications, for accessories which assist in installing air conditioners, and more.

Acquisition of Israeli Companies based on patent portfolio value

Iscar Metals from the Tefen Industrial Park was acquired a few years ago by the giant American capitalist Warren Buffet for \$4 billion dollars, and is considered to be a company with a particularly large number of registered patents.

Israeli University Patent Portfolios

The Ramot Company, on behalf of Tel Aviv University, is engaged in patent registration and in commercialization of the technology. The University conducts research in a variety of fields, but patents are registered primarily in the fields of engineering, computer science, chemistry, physics, biology, medicine and biotechnology.

The Ramot Company files about 70 international patent applications per year, and is the largest institution in Israel from the aspect of worldwide patent registration.

The biggest success of the University in recent years was the implementation of patents that were born from the invention of the disc-on-key, and invention which was acquired by SanDisk, which manufactures memory cards for computers.

The Tel Aviv University policy is to divide the royalty money between the University and the inventor himself. Tel Aviv University receives millions of dollars each year based on these patents.

Israel's Technology Infrastructure

The technology infrastructure in Israel is at a very high level, and this was examined over two decades, and in all the relevant parameters Israel is one of the top four in the world.

The impressive technology infrastructure in Israel is due in large part to the Defense Ministry, which has over the years prepared its employees in the information and technology fields. This is not the case in most of the world, and in relation to the size of the country, this is a large contributing factor.

Another factor contributing to Israel's technology position – the arrival of new immigrants

The immigration to Israel from the USSR in the 90's, was characterized by highly qualified immigrants. Forty percent of them came with an academic certificate in the science field.

Also, Israeli universities in the technology and natural sciences fields are recognized worldwide.

Dr. Noam comments that Israel is "a very creative society, and it is clear to all that Israel is a country that must invest in technology and R&D, in order to continue to be where we are. When looking at the last decade, we see an increase in the number of patent applications".

Dr. Noam has a dream: to establish in Jerusalem an international technical center with 1,000 patent examiners, who will provide service to companies and Israeli inventors, but also to those from all over the world.

"Five years ago the Patents Authority had 30 patent examiners" he says, "and today we are close to 100. These are the examiners who have to decide if the particular invention in question is really deserving of receiving the status of a patent. Israel today has the problem of a brain drain, and the State often tries to implement plans of returning scientists.

Why not make Jerusalem into a center for patent examination? The world has a shortage of patent examiners, and on the other hand there are millions of patents waiting for examination. This is a simple process, which could return very many scientists from all over the world to Israel".