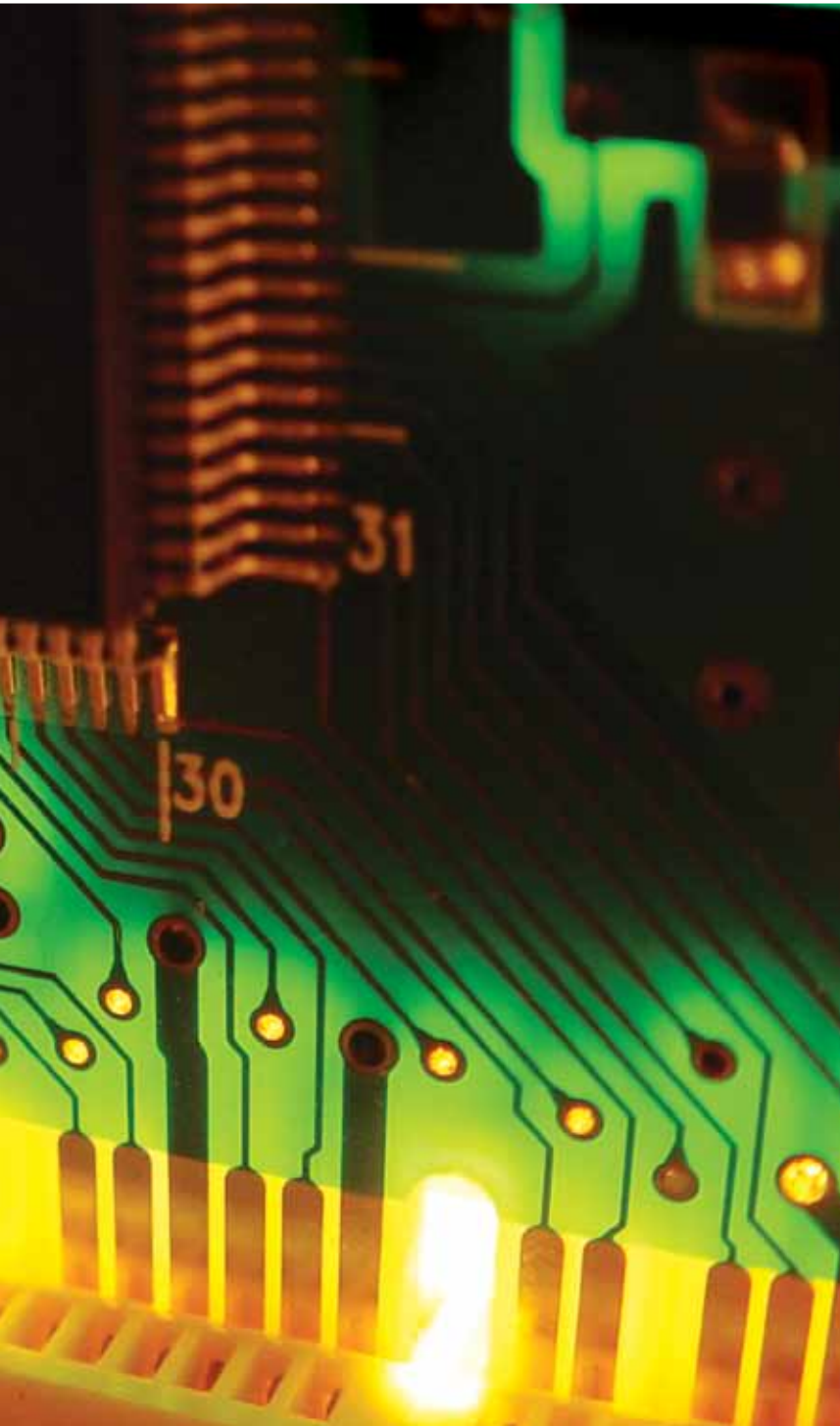


Israel



Innovations

Commitment to Innovation

Innovation is part of Israel's culture. Israeli startup guru Yossi Vardi explains, "This is a startup country, socially and culturally. It is in our heritage, our ethos. . . . The country is constantly renewing itself all the time."

- Israel has the highest number of university degrees per capita worldwide.
- Israel has the most scientists and technicians in the world per capita.
- In 2006 Israel ranked third in the world in per capita patents.
- Israel has the highest number of home computers per capita in the world.
- Israel has the third highest rate of entrepreneurship – and the highest rate among women and among people over 55 – in the world.
- Israel ranks as the top country for scientific publications. Almost 60 percent are in biology and related medical or agricultural fields.
- Over 25 percent of the workforce is employed in technical professions.
- Israel is one of eight countries in the world that have the technological ability to build and launch their own satellites.





The cholesterol-lowering pomelit fruit.



Turmeric helps protect crops from pests.



The pomegranate is used to promote heart health.

Agriculture

Since the days of its founding, Israeli scientists and farmers have worked together to develop methods of improving agricultural yields and quality.

- The Israeli-developed pomelit fruit lowers cholesterol by increasing antioxidant activity, which is good news for millions suffering from high cholesterol.
- Israeli dairy cows produce the world's highest milk yield on average, thanks to a quality diet and scientific innovations in the dairy field.
- Israeli researchers have developed a unique method to protect crops from pest damage using turmeric, a natural Asian herb.
- The Israeli company Bio-Bee Biological Systems has developed a method of using genetically modified fruit flies to decrease pest populations, helping farmers in 30 countries around the world.
- Israel produces chickens that are resistant to disease and turkeys that are resistant to heat.
- Israeli hens lay an average of 250 eggs per bird, among the most prolific in the world.
- Israel is a leader in fish breeding and farming.
- An Israeli scientist at the Technion, the Israel Institute of Technology, has helped high-risk patients avoid heart bypass surgery by having them drink pomegranate juice.

Biotechnology

Israel is always on the cutting edge of biotechnology, turning pure research into projects with nonprofit and profit applications.

- The pace of innovation, development and growth in Israel's biotechnology sector is unparalleled. On a per capita basis, Israel has the largest number of biotechnology startups worldwide.
- Israel's 180 biotech companies are creating therapeutic products, diagnostic tools and revolutionary drug-delivery techniques benefiting people all over the world.
- Israel's Brainstorm Cell Therapeutics has developed a novel stem cell therapy to help Parkinson's patients produce dopamine to restore their motor functions.
- An Israeli scientist discovered a natural bacterium that can combat mosquitoes and black flies, preventing river blindness and malaria in 11 African nations, as well as reducing infection along China's Yangtze River by 90 percent.
- An Israeli company has developed a blood test that can diagnose heart attacks via the telephone.
- Israeli professor Yair Reisner has succeeded in growing functional kidneys from human and porcine stem-cell tissue. The stem cells have been transplanted into mice where they grew into perfect kidneys, completely matching the mice's own.
- In 2002 during a fact-finding tour of Israel, the late actor and paralysis research advocate Christopher Reeve called Israel "the world center" for studies on paralysis.





The Israeli-developed Emergency Bandage in use.



Emergency Bandage

Medical

Israeli medical innovations help save and improve lives around the world.

- The Sourasky Center in Tel Aviv has developed the HistoCan, a tiny air-driven camera that is expected to be used in early diagnosis of ovarian cancer, which is very difficult to detect in its initial stages.
- The PillCam, a disposable miniature video camera that patients can swallow, was developed in Israel. Doctors in more than 60 countries use it to visualize the small intestine noninvasively and painlessly, already helping more than 122,000 patients worldwide.
- An Israeli drug is used by about 70 percent of multiple sclerosis patients worldwide. Two out of the three top drugs to treat multiple sclerosis were developed in Israel.
- Before Israel's Emergency Bandage, soldiers often bled to death while awaiting treatment. Utilized by American soldiers in Iraq and Afghanistan, this new bandage saves lives by preventing hemorrhaging with a special built-in pressure bar and closure clips.
- Israeli company Biolapis has developed a new handheld computer device for monitoring coronary disease that achieves the sensitivity currently found in high-end imaging equipment in a compact and more affordable form.

Communications

Israel is a world leader in providing communication technologies, connecting people around the world.

- Key mobile phone technology was developed in Israel by Motorola, which has its largest development center in Israel.
- The Israeli company Comverse invented voicemail.
- The telecommunications industry in Israel employs 57,200 people, 12 percent of whom are involved in research and development.
- Israel is one of the few countries with a 100-percent digital network.
- Instant messaging and chat room technology was developed by four young Israelis in Tel Aviv. Their program, ICQ, is now used by millions around the world.
- Israeli start-up company TransChip developed the first high resolution camera that fits on a single electronic chip, for use in cellular phones.





Above: The Intel high-tech factory in Jerusalem.

Below: Infrared virtual keyboard invented by Israeli company VKB.

Computing

Often called the “Second Silicon Valley,” Israel provides research and development for some of the world’s largest high-tech companies.

- Intel’s Centrino chip, which powers wireless networks, including those at Internet cafes and hotels, was developed at Intel Israel.
- An Israeli scientist developed the mathematical calculations that enabled the Mars Opportunity and Spirit rovers to travel on Mars using solar energy.
- Most of the Windows operating system was developed by Microsoft Israel.
- Israel is home to both Microsoft’s and Cisco’s only research-and-development facilities outside the U.S.
- Checkpoint, an Israeli company, pioneered Internet and network security technology such as the firewall.
- Zip compression technology was developed by two professors at the Technion, Israel’s Institute of Technology.



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