# Israel Edges Out South Korea to Become Global Leader in Research and Development

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Israel and South Korea have been very close since 2012 in terms of the percentage of Gross Domestic Product (GDP) invested in Research and Development (R&D). In 2015, the Organisation for Economic Co-operation and Development (OECD) reported that Israel had edged out South Korea, with Israel investing 4.25% of its GDP compared to South Korea (4.23%).

Although the statistical differences between these two countries may be small, their investment represents a national emphasis on R&D that is far greater than any other country in the OECD. The <u>United States comes in at 2.8%</u> followed by China at 2.07%. Recognizing their common values in this area, Israel and South Korea formed the Korea-Israel Industrial R&D Foundation in 2001. In fact, Samsung's first R&D centers were in Israel.

In both countries, industry-led research represents most of the R&D investment. "Basic" research, as defined by the OECD, is the "work undertaken primarily to acquire new knowledge without any particular application in view," represents 0.73% of GDP investment in South Korea and just 0.39% in Israel, according to <u>Nature</u>. Thus, South Korea is the clear leader in this arena, but the economies of both countries have



benefitted enormously from foreign investment, owing to their governments' fundamental R&D advocacy.

# **The Startup Nation**

Israel has also become known as the <u>Startup Nation</u>. This transformation is largely the result of four factors:

- 1. Culture and History
- 2. Military Requirement
- 3. Educational System
- 4. Government Prerogative

## **Culture and History**

The nation of Israel is young and was officially declared a state in May 1948. It has had a turbulent yet fertile history since that time. It is a nation of immigrants who have given up a lot and have not much to lose. They are fighters searching for better lives in the face of adversity. This tends to produce creative thinkers, problem solvers, and resilient survivors ... the perfect foundation for a nation of innovators.

## **Military Requirements**

Israel's two-year military requirement provides its citizens with the experience of living in a highly-disciplined environment, learning new and valuable skills, and establishing a network of friends and acquaintances who will be important resources in the future. In addition, the Israeli Defense Forces place less emphasis on hierarchy and rank and more on the value of good ideas and good work. Young soldiers are encouraged to debate and challenge their superiors, an attitude that carries over into the business world.

## **Educational System**

Israel's educational system is robust and world-class. *Start-Up Nation* states that among Israel's population of 8 million, there is the "highest concentration of engineers and PhD holders per capita in the world." The system also promotes an interdisciplinary approach. Rather than selecting a single area of focus, students are encouraged to get creative and forge a dynamic mixture of science and the liberal arts.

#### **Government Prerogative**

Innovation is fundamental to Israel's economy. <u>Invest in Israel</u>'s Eyal Eliezer, Senior Director of Strategy and Marketing, says that the "Israeli Government seeks to offer maximally supportive conditions for companies and investors looking to invest in Israel." This support includes grants, reduced tax rates, and tax exemptions, primarily aimed at international investors. According to the APCO Forum, these 2017-18 government tax



benefits were attached to a clause that would protect them for 10 years.

## **Rise in Foreign Investment**

Over 350 of the world's premier Multi-National Corporations (MNCs) do business in Israel. It is also the home base for thousands of startups. Some statistics from World Finance:

- In 2015, Israel recorded \$11.6 bn in foreign investment, a 90% increase from 2014
- In 2015, Israeli startups raised 4.4 bn in venture capital funding, up 30% from 2014's record year
- There are more startups per capita in Israel than anywhere else in the world

## A Global Leader with Attitude

Israel is a nation with few natural resources and a small domestic market. Therefore, it will always be a nation that looks outward for its survival. The spirit of innovation is at the core of Israel's R&D investment culture. With a government that is fully dedicated to maintaining Israel as a research leader, a military that supports innovative thinking and action, an educational system that encourages creativity and dynamic engagement, and a culture and history born of bold ideas, Israel should easily keep pace with the global leaders in R&D.

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