

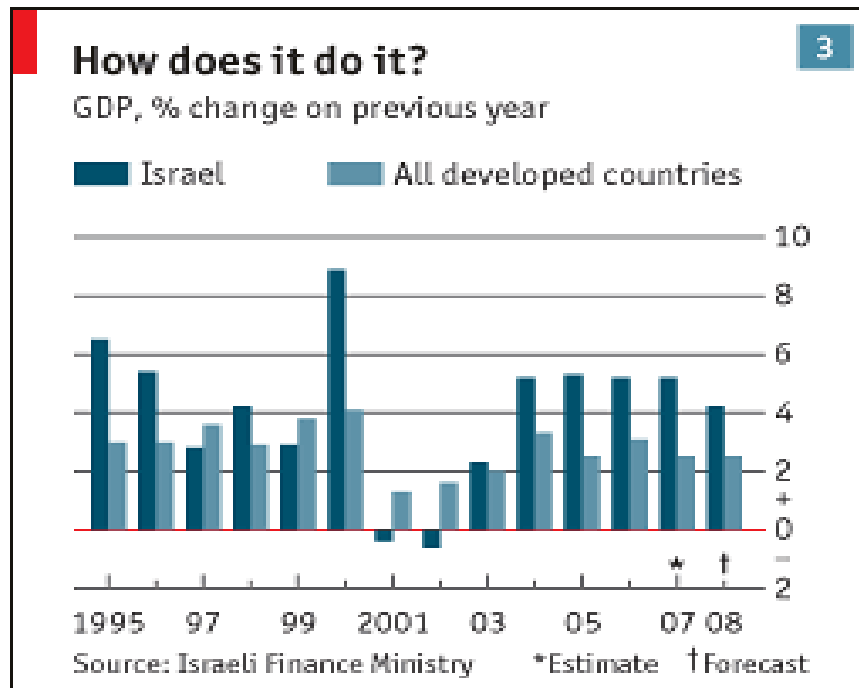
# Israel: Incubator of Innovation

Jon Medved

● show me your Vringo  
**Vringo**

# “Israel: the power to astonish”

- “FOR a country with so many wars, Israel still has an economy with the power to astonish” THE ECONOMIST, APRIL 3 2008



2009  
ISRAEL: + 0.9%  
OECD: -4.3%

2010  
ISRAEL: +4.5%  
OECD: +2.7%

2010 Q4  
ISRAEL'S GROWTH: +7.8%  
2011 Q1  
ISRAEL'S GROWTH: +4.7%

# The Israeli Tech Success Story

- Israel has more companies listed on New York Stock Exchanges (NYSE, AMEX, NASDAQ) than any other country except the United States and China
- Per capita VC funds raised in 2000:
  - Israel: \$600 per capita
  - Europe: \$30 per capita
- The world's highest per capita count of engineers
- The highest density of high-tech startups
  - Nearly 4,000 in a country of seven million people.
- High-tech now contributes approx 50% of exports, \$15B+

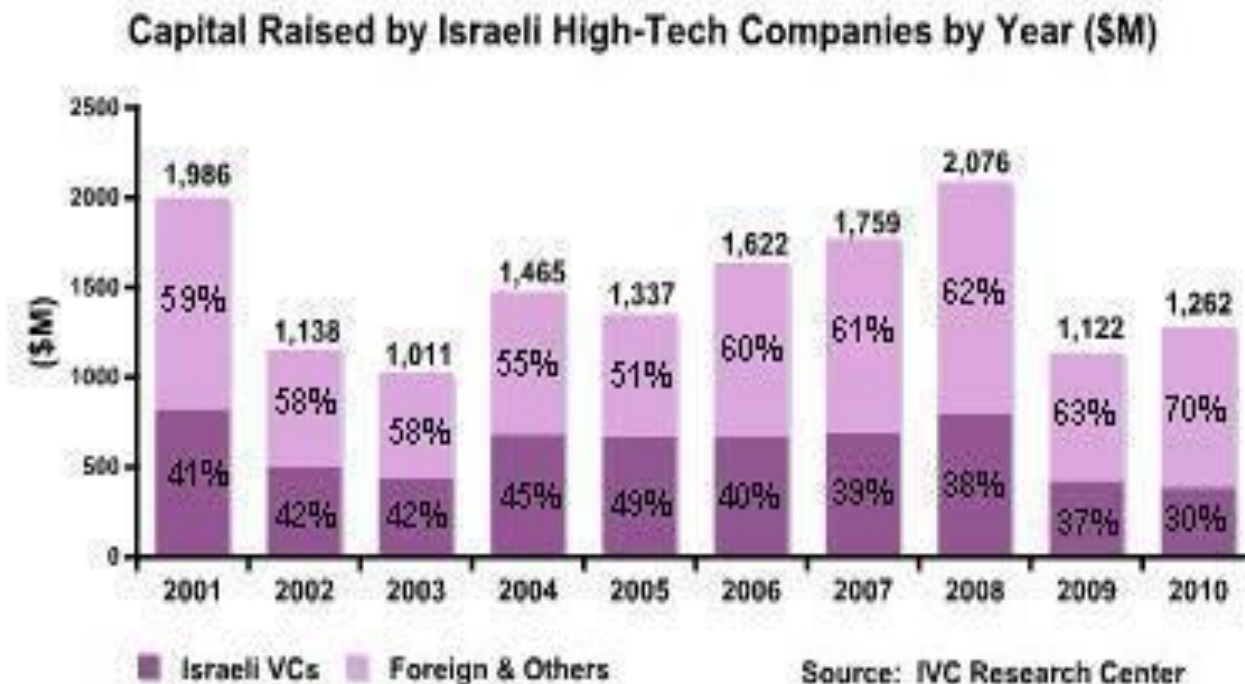
# Israel's VC Industry

Amazing progress over two decades

- First Israeli VC fund established in 1986- with \$26M
- Second VC fund established in 1992 with \$24M
- Today over 60 active funds with over \$14 Billion under management
- Major US/European funds have opened Israeli “branches”: Sequoia, Benchmark, Greylock, Walden, Apax, Alta-Berkeley
- Major US/European funds actively sourcing deals with in-house Israeli specialists: Lightspeed, Accel, Battery, Canaan
- All major multinationals invest in Israel

# 2010 another very strong year

- Capital Raised by Israeli hightech companies (\$M)

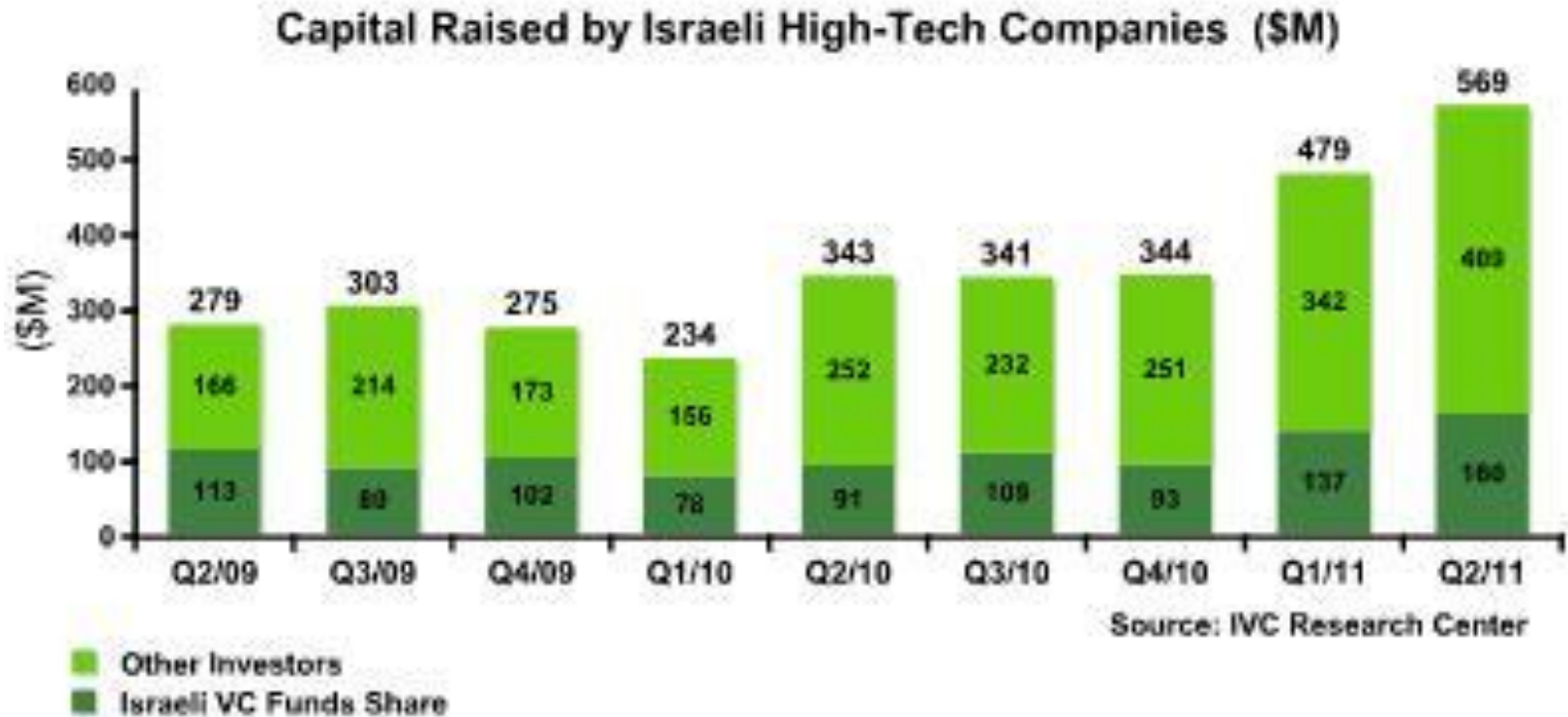


# “VC Investment back to pre-crisis levels” Globes, May 15 2011

- First Quarter 2011: \$479 Million invested in 140 startups-according to IVC
- Second Quarter 2011: \$569M in 145 co's
- According to PWC “Money Tree Survey” ‘Almost double a year prior’
- 82% sequential growth half on half
- Largest amount invested in Internet start-ups
- “We haven't yet seen the peak of the current period”

# 2011 off to a great start

- Capital Raised by Israeli hightech companies (\$M)

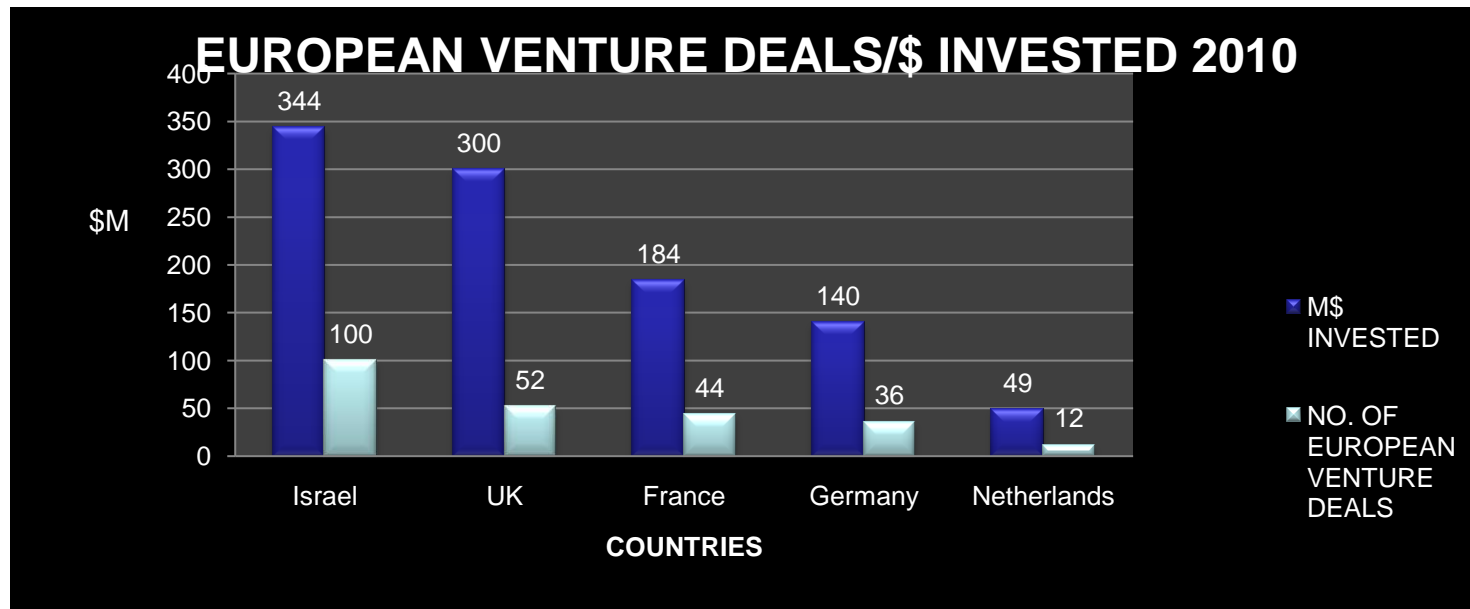


# 2010 another outstanding year for Israeli Venture Capital Backed Companies

- Israel: 391 Deals, over \$1.26B invested (down slightly from the annual 450+ deals in years past)
- Israel represents roughly 50% of European deal flow, 20% of \$ invested in European venture deals
- Amount invested in Israel was 13% above \$1.2B invested in 2009
- Average Israeli investment per deal \$3.44M in 2010
- Israeli VC funds share of funds invested at 30% (70% from foreign funds)



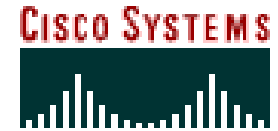
# Israel is the most active European Venture Country



# M&A Exits are still strong



# Who is buying (2005-2011)



Microsoft

Lucent Technologies  
Bell Labs Innovations



Johnson & Johnson

# Who is buying (2005-2011)?



JOHN DEERE



# Who is buying (2005-2011)?

**CHEMCHINA**  
国化工集团公司

**PHILIPS**

**SAMSUNG**



**3M**

**SIEMENS**

  
**MOTOROLA**



**Medtronic**



**MACMILLAN**

**BERKSHIRE HATHAWAY INC.**

**P&G**  
*Procter & Gamble*

# Your Daily Dose of Israeli Technology

## What time is it?

Time for a dose  
of Israeli  
Technology



# Personal Computers



Desktop-Pentium



Notebook-Centrino



PCB Inspection



Chip Manufacturing



# Telephony



CellPhone



Cordless Phone



Billing



Call Centers



Voice Mail



VOIP





# Consumer Electronics



Flash Memory



DVD



LCD/Plasma



Satellite TV



CableTV



Compression



# Software/Internet



Instant Messaging



Security /AntiVirus



Firewalls



SW Performance



Point of Sale



Comparison Shopping



# Medical/Life Science



Generic Drugs



Spinal Cord



M2A/PillCam



Stents



Drip Irrigation



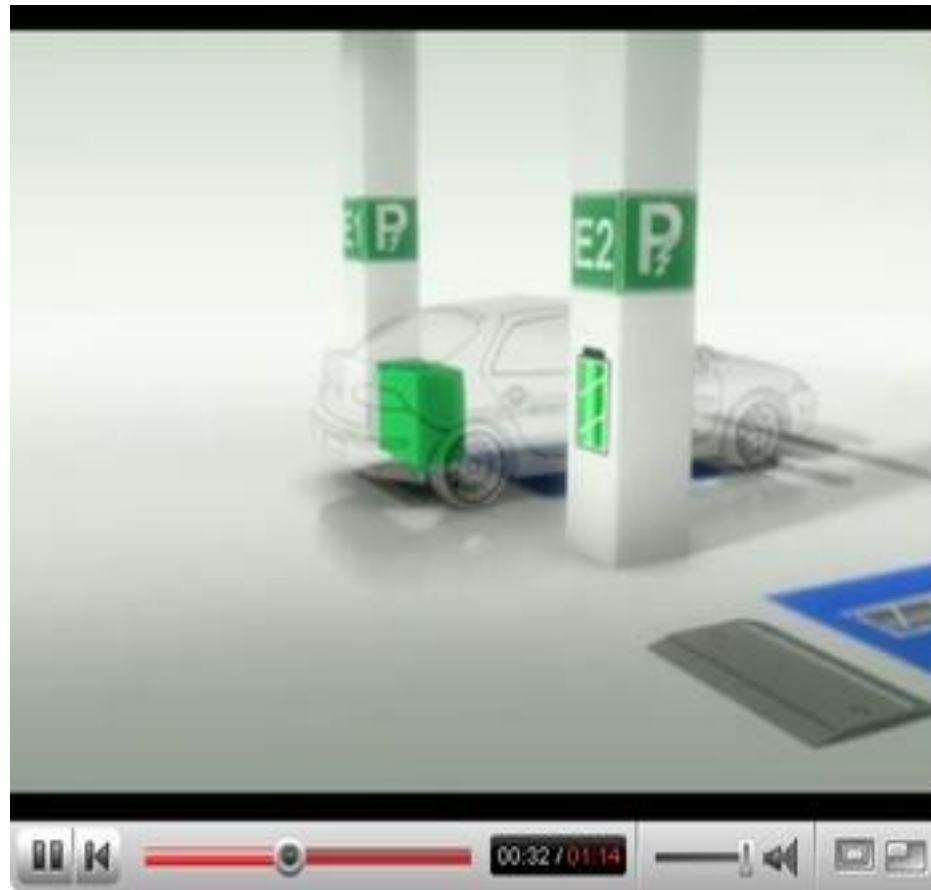
# Al Gore comes to Israel's Renewable Energy Conference (May 21 2008)

- "I have one answer: Yes. The question is: Is renewable energy good for the Jews?"
- "At this moment in history when, for the first time, all of the people of this earth have to make a clear, seemingly difficult but really quite simple moral judgment about our future, **the people of Israel can lead the way to a renewable future,**"
- "Why should not Israel play the leading role in this historic shift to renewable energy? Israel can, and Israel should"

# Green/environmental

- Ormat-geothermal
- IDE-Desalination/ashkelon
- Netafim-drip irrigation
- CBD-super trees/ethanol
- Evogene-salinity resistant tomatoes
- Atlantium-water purification
- Luz-Barstow-solar
- New Cleantech Funds-Terra, ICV

# Project Better Place-just closed an additional \$325Million at \$1.25B valuation (Jan 2010)



# Ormat (ORA)

- Leading Geothermal Energy Company; \$2B market cap
- Building plants in Hawaii, Nevada, New Zealand and more....
- Building Recovered Energy Power Generation creating power from waste heat

*Ormat/New Zealand Geo Thermal Plant*



# Israel world leader in Water tech

- IDE Ashkelon Desalination plant provides 15% of Israel's drinking water, now followed by Palmachim and Hadera
- IDE Recently Awarded \$100M contract in Australia
- Ashkelon Awarded "Water Plant of the Year" in Dubai
- the world's largest SWRO plant with a 320,000 cu.m/day (84 MGD) capacity...It is more than twice the size of the largest existing SWRO plant and raises the ambition of the whole RO sector, proving SWRO can meet the challenges of large-scale municipal supply. At \$0.52/cu.m (\$1.97/1000g) it is one of the lowest desalinated water prices in the world."





# Israel drinks from the sea

- The desalinated water will be cheaper than the cost of pumping from the Kinneret (Sea of Galilee) to the national water carrier, according to Teddy Golan, CEO of the IDE Technologies group that built the Hadera \$400 million desalination plant.
- Soreq will be the world's largest reverse osmosis desalination plant when it is completed around 2013.
- The Soreq plant will join three other plants - in Ashkelon, Palmahim, and Hadera - to provide nearly 600 million cubic meters of water per year by 2013. That would represent most of the drinking water in Israel.

# Smart (Drip) Irrigation Pioneer: Netafim

- Netafim annual sales of +\$400M
- Major Investor: Markstone



# Israel is a Solar Powerhouse

- Solel Inc. is developing the 553 MW Mojave Solar Park 1 (MSP-1), the world's largest solar thermal power plant, in California's Mojave Desert. In July 2007, Solel Inc. concluded a 25 year Power Purchase Agreement with Pacific Gas and Electric (PG&E) to provide it with electricity from MSP-1.
- Solel just bought by Siemens for \$418Million dollars
- one square kilometer of land can generate as much as 100 gigawatt hours (GWh) of electricity per year using solar thermal technology, enough power for 50,000 households..



# Brightsource - round 2 for Arnold Goldman

- The founder of Luz (later called Solel) has started a new company—Brightsource
- Investors include Google, Chevron, BP, and Morgan Stanley
- Currently contracts for 4GW of power from PG&E and So Cal Edison
- Duking it out with Solel
- Even Obama is excited about the company <http://www.youtube.com/user/BrightSource#p/a/f/0/oRxpwFfWD2c>



# Haiti-Israel's outsized contribution

- PM Netanyahu described it as a “small country with a big heart”
- IDF Field Hospital first to deploy
- 220 medical personnel
- Primary surgical facility through the critical first week
- IDF home front command, Oketz dog unit, and others
- 1/3 of participants reservists who were called up



# Why Israel? It's the Culture...

- Israel is like Silicon Valley or Boston-Compact Geographical entity-2hrs to any deal
- Informality is a way of life-Bibi, Dudu,Muki,Chemi
- Risk taking is endemic
- Pioneering Ethos
- Immigrants drive the process
- International networks and experience



# And It's the Culture...

- Partners with G-d in creation
- Everyone questions authority-"every ----- a king"
- Flat, anti-hierarchical social organization
- There are no "unknown millionaires"-a real community
- Building startups has become the national sport; entrepreneurs -the new cultural heroes



# Take the culture, and add a generous helping:

- The role of the multinationals-
  - IBM, MS, AOL, Cisco, Intel, Motorola
  - Building design centers, buying companies, training managers
- Investment Banks
  - More tech bankers than anywhere but the valley
- Institutional Investors
  - All of the majors are committed-to several funds
- Geopolitical re-alignment since the Gulf War
- Massive immigration and brain influx from former Soviet Union
- Unique role of the Army



# The Israeli Army



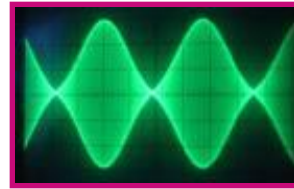
## The Israeli VC's not so secret weapon

- Best and the brightest assemble in the elite units-technical and fighting
- Elite unit pedigree first question and most important resume item
- Units are outfitted with the latest “toys”
- Learn how to build products fast and cheap
- Value placed on development and applied research
- Work as teams, take risks, and lead
- Cutting edge technologies in sw, communications, security, electro-optics, video, distributed networking, etc.
- Meet friends and partners for life
- When they come out-they are “ready for bear”

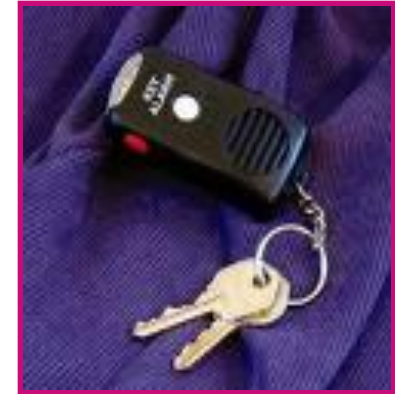
# RF Signal



Small weight sensor  
Placed under car seat



10m distance



Alarm device goes off  
when Baby is left in car

*My Daughter's Nina Jr. High project*

## Forget-me-not System Diagram

# The Virtuous Circle

- Investment comes from US funds (state funds, banks, etc) to Israeli venture funds
- Funds invest in Israeli startups with new technology
- Startups get more investment from US Venture funds, and set up office in the US
- Startups hire US staff and create many jobs
- Startups go public or get sold creating profits for the investors, wealth for the employees, and the cycle starts again
- This is the positive side of globalization that is not threatening US jobs but creating them

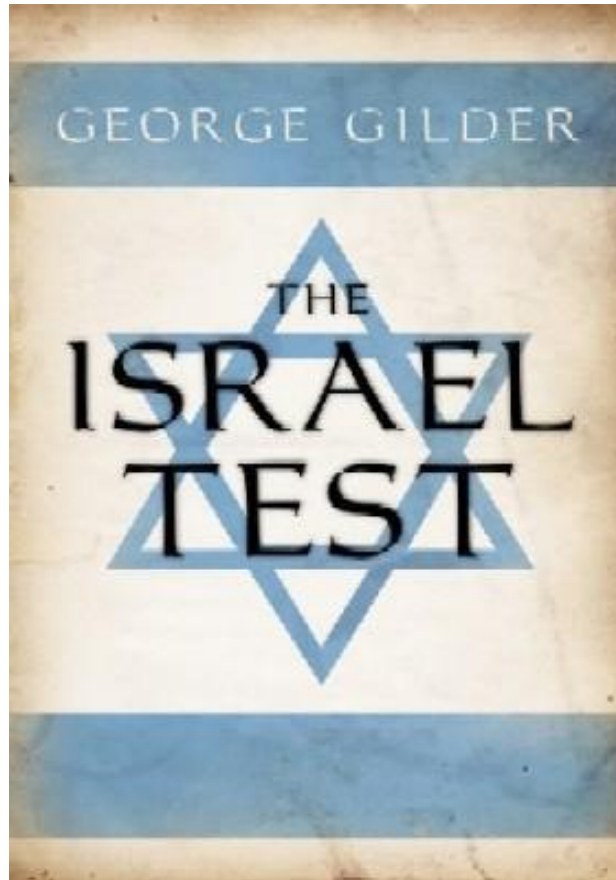


# Storm Clouds

- Education;
  - Population has doubled since 1973 while available faculty positions have declined: Technion flat, HU down 14%, TAU down 21% -happening while student degrees increased 355%
  - Israel places 37<sup>th</sup> out of 57 in OECD Pisa Science Education Tests
  - In 1973 26 senior researchers/Billion shekel output, down to 8 in 2005
  - 20 out of 26 among OECD countries investment in higher education
  - \$100M university research budget, MIT gets \$950M from US govt
- Brain Drain:
  - 40,000 Israelis in Silicon Valley, 500K+ in US
  - MA and PhD's: 10% or physicists, 30% of computer scientists, 6.9% overall (1995-2002) leave
  - 25,000 high tech workers left in the past 7 years
- Inequality:
  - Going up: 20% of families, 36% of children live below the poverty line
- Need to bring underrepresented groups into the tech work force: Arabs and Haredim



# Further Reading



# More Further Reading

- [www.Israel21c.org](http://www.Israel21c.org)
- Amazing Website-weekly updates on Israel's contributions to the world





show me your Vringo  
**Vringo**<sup>TM</sup>

**Thank you.**