Innovation as a Growth Engine

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Information gathered from Yehuda Zisapel’s presentation: Israel Association of Electronics and Software Industries July 2009
The Invisible Edge, Mark Blaxill and Ralph Eckardt, Portfolio, Penguin Group
Trends in the Israeli Economy – Economics and Research Department, Ministry of Finance, June 2009
Agenda

- Status: State of Israel - Hi-Tech as a substantial economical force*
- Hi-Tech industry = innovation
- Innovation?
  - The road not taken
  - Survival
  - How to start?
- Conclusions

*comment: I am NOT an economics savvy, I may have some experience in innovation
Israel Manufacturing Export by Technology - 1991 vs. 2006

A major change in Israeli industry
Hi-Tech counts for ~50% of the manufacturing exports
Make’s the main contributor to Israel’s economical growth
High-Technology as a Growth Engine

Export

~3/4 of Israel’s industrial export comes from Medium-High + High Technology industries
High-Technology as a Growth Engine

- Most (~85%) of the Hi-Tech sales is export based

*In million $
High-Technology Growth Correlation to the GNP*

High Tec crises

Explosion of the Hi-Tec bubble

Back to growth

High Tech Crises

GNP Increase in %

Increase in Hi-Tec production in %

* source: Yehuda Zisapel
Long Range vs. Short Term

- Innovation’s impact lags...
Substantial Growth = New Directions

- Growth ➞ Either create new markets or new products
- Examples of new products
  - IBM ➞ Main Frame Computers
  - Fairchild ➞ Semiconductors
  - Intel ➞ MicroProcessors
  - Google ➞ Search engine
  - Teva ➞ Generic drugs
  - Check point ➞ Security
  - ....
Sailing Basics

wind

Buoy
Sailing - wind shift

wind

Buoy

α

α

α

α
25th American Cup – September 23rd 1983
Liberty I against Australia II

7 rounds race, Score status: 3:0 to Liberty I, 4th round started

Wind

Buoy

Liberty I

45 seconds head start

Start line

Australia II
Sailing competition

getting first

- What is the Strategy of Boat 1?
- What is the Strategy of Boat 2?

Do not follow ➔ Invent
The path for Innovation

the other way

From: The Road not taken
By Robert Frost

....
I shall be telling this with a sigh
Somewhere ages and ages hence;
Two roads diverged in the wood, and I -
I took the one less traveled by,
And that has made all the difference
Herakleion airport, Crete
My humble Examples: the road not taken

- Pentium definition
  - 1988-1990
- Trace Cache
  - 1990
- MMX definition
  - 1993-1996
- Pentium M definition
  - 1999-2002
- Centrino
  - 2005-
- Asymmetric clusters (ACCMP) (failed)
  - 2004-2006
- Content Aware Action (CMX)
  - 2007-2009
- MC vs. MT machine (Technion)
  - 2009-
Survival

- **Educate for survival** ("only the paranoid survive")
  be hungry, dare, try, take the risk

I'm often credited with the motto, "Only the paranoid survive." .....when it comes to business, I believe in the value of paranoia. Business success contains the seeds of its own destruction. The more successful you are, the more people want a chunk of your business and then another chunk and then another until there is nothing left.– Andy Grove
Innovation

- Go in a path nobody dared to go
  - Do not follow
  - Stay away from the crowd
- Belief, a strong belief
  - Energy to continue
  - Do not give up - stay a believer

“Of all things in life, nothing is more foolish than inventing”
James Watt (steam engine’s patent inventor b. 1736)
Innovation: how to start?

- Belief
- No limitations
- Go back to basics
- Set the needed direction and find a solution
  - Can you do it for $1B?
- Do not give up - stay a believer
Summary

- Innovation is a growth engine

- Innovation
  - Do not follow – innovate
  - Be hungry and willing to take the risk
  - Survival mode
Thank you