

# Innovation as a Growth Engine

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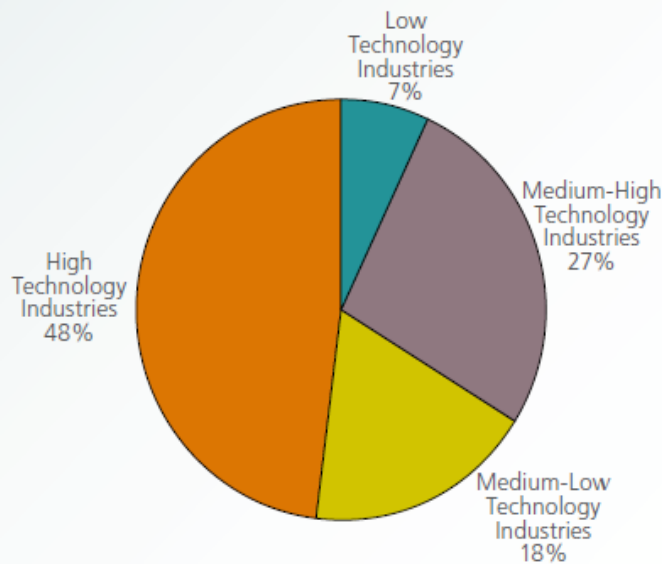
Technion, March 4<sup>th</sup>

# 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**

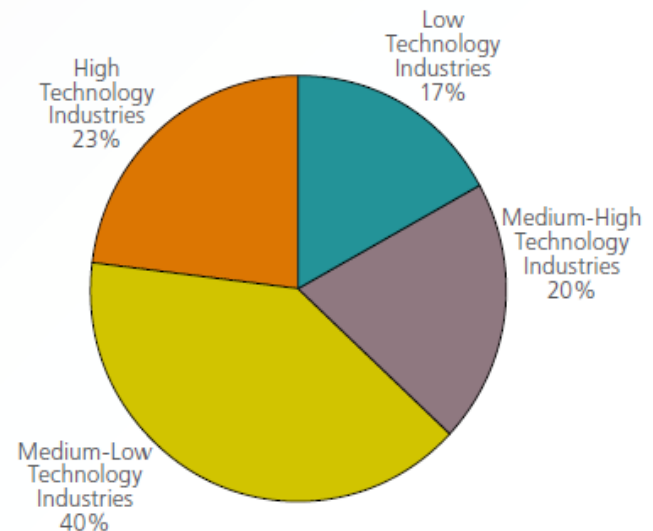
# Israel Manufacturing Export by Technology - 1991 vs. 2006

Figure 1.7 > Manufacturing Exports by Technological Intensity - 2006



Source: The Israeli Export & International Cooperation Institute, 2007

Figure 1.8 > Manufacturing Exports by Technological Intensity, 1991

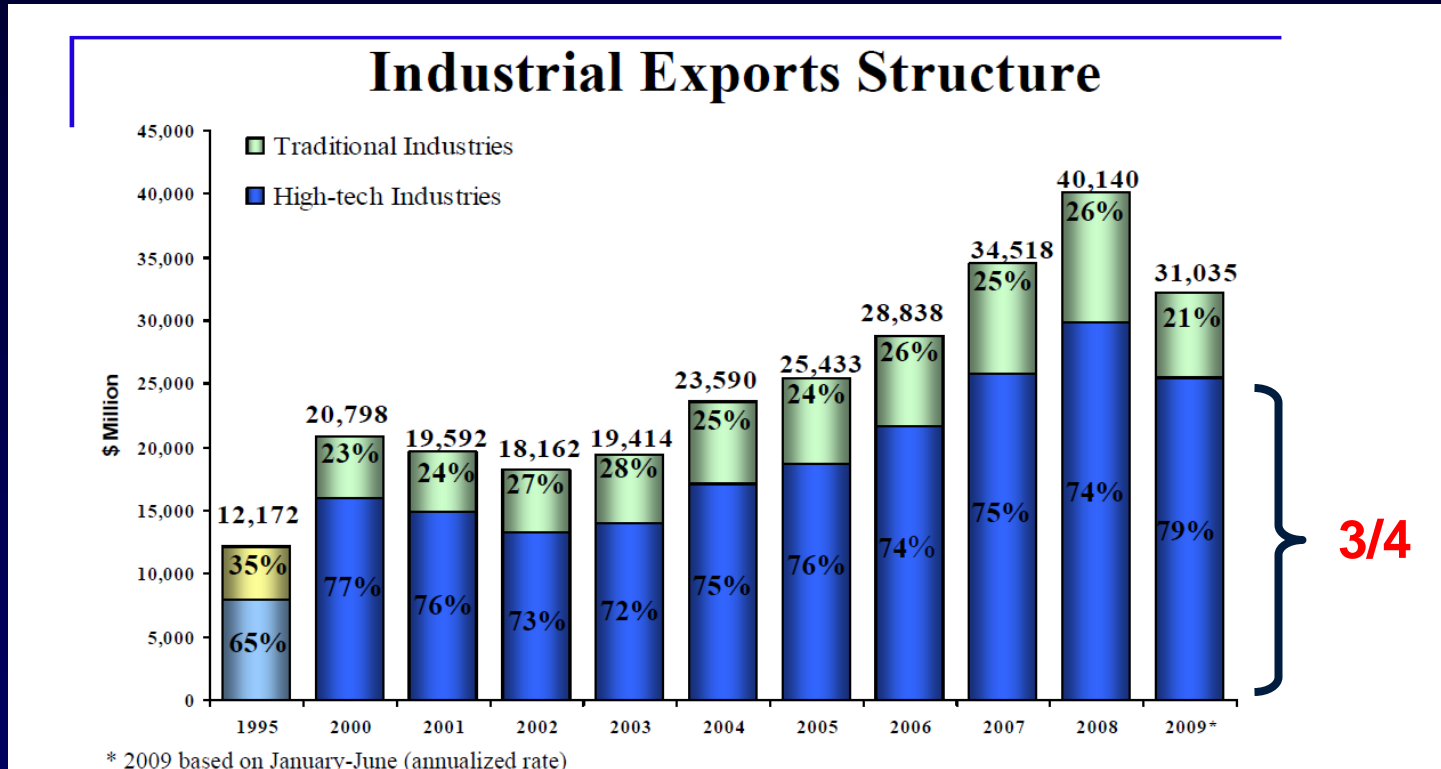


Source: The Israeli Export & International Cooperation Institute, 2003

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



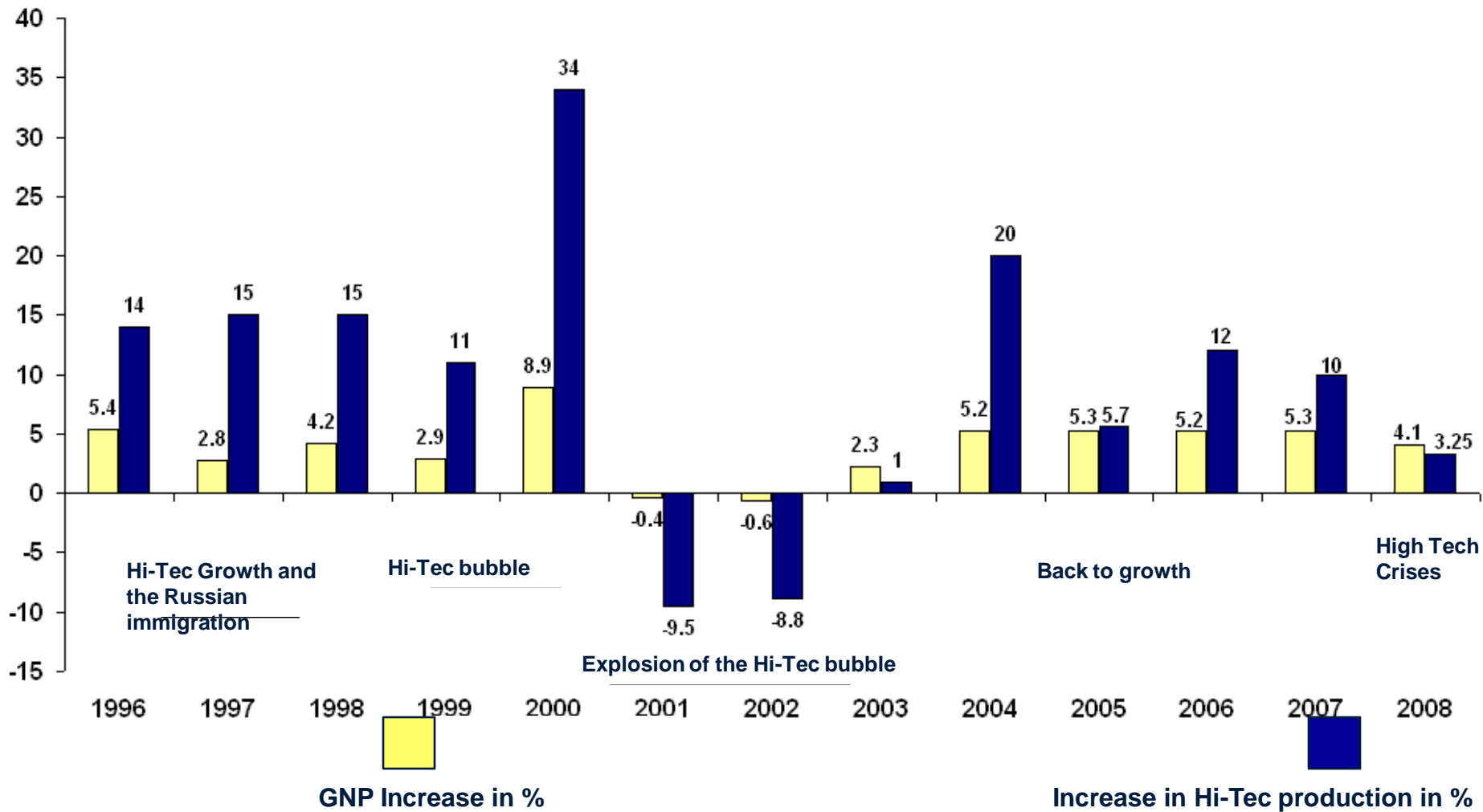
**~3/4 of Israel's industrial export comes from Medium-High + High Technology industries**

# High-Technology as a Growth Engine

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

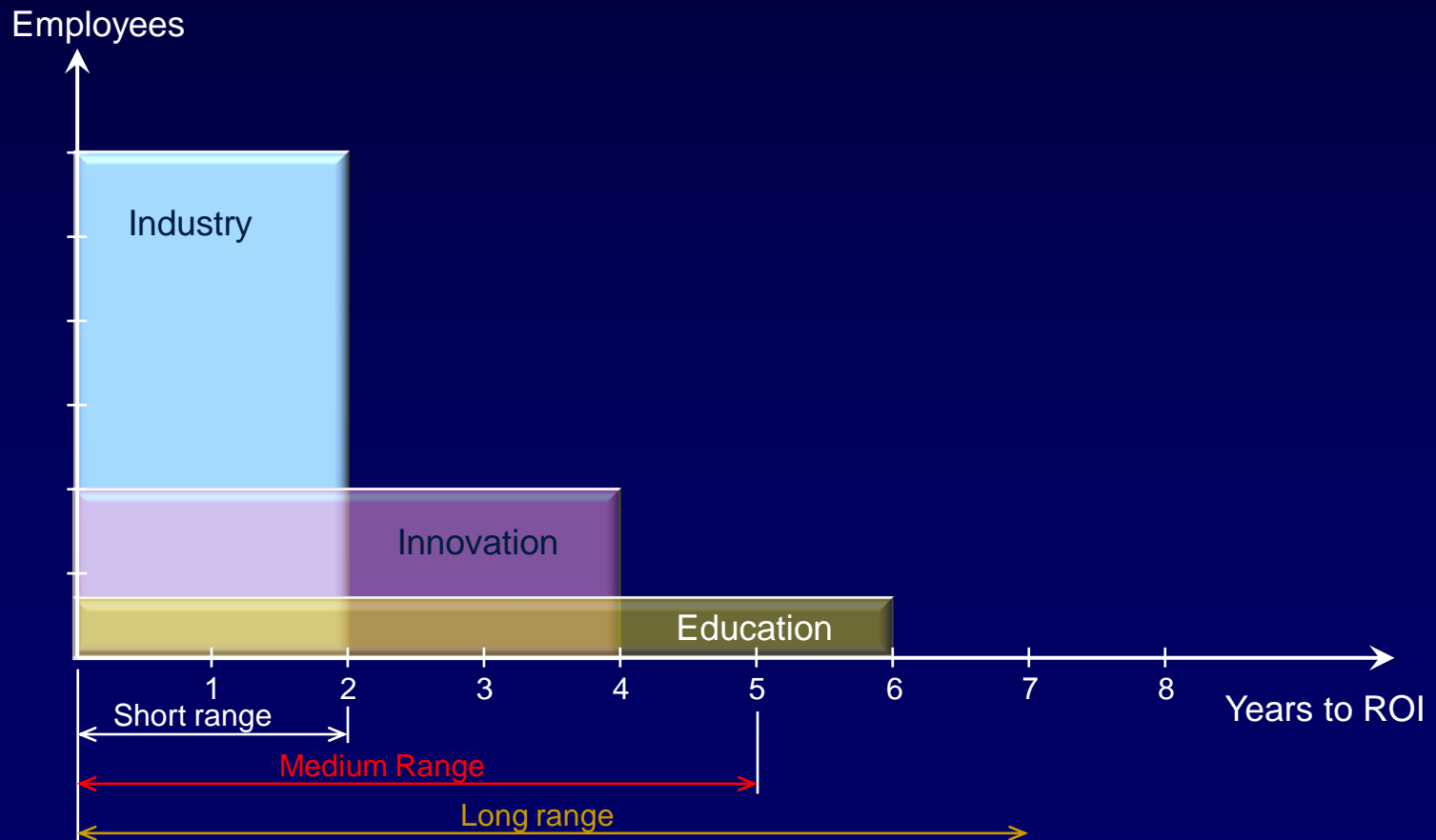


# High-Technology Growth Correlation to the GNP\*



# Long Range vs. Short Term

- Innovation's impact lags...

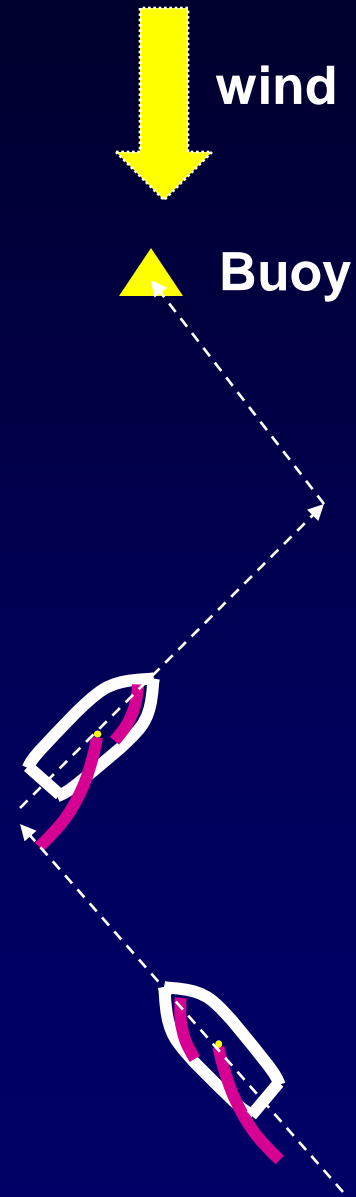


# Substantial Growth = New Directions

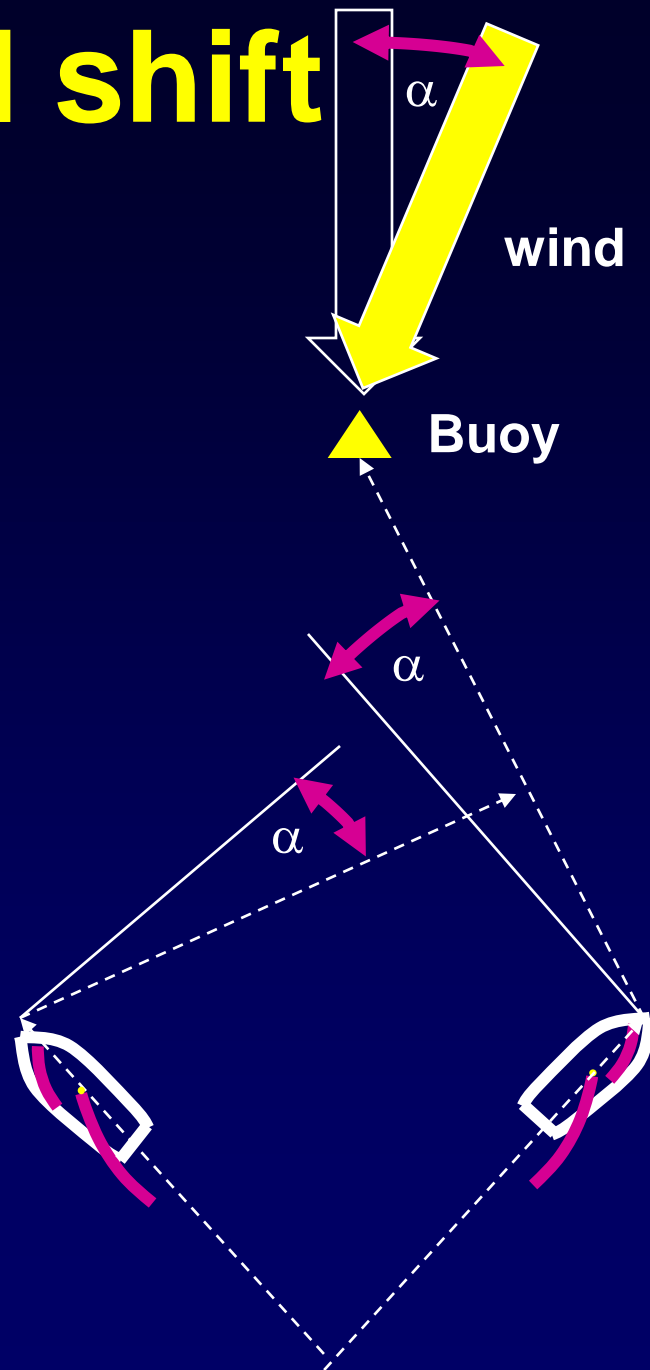
- **Growth → Either create new markets or new products**
- **Examples of new products**
  - **IBM → Main Frame Computers**
  - **Fairchild → Semiconductors**
  - **Intel → MicroProcessors**
  - **Google → Search engine**
  - **Teva → Generic drugs**
  - **Check point → Security**
  - **.....**



# Sailing Basics



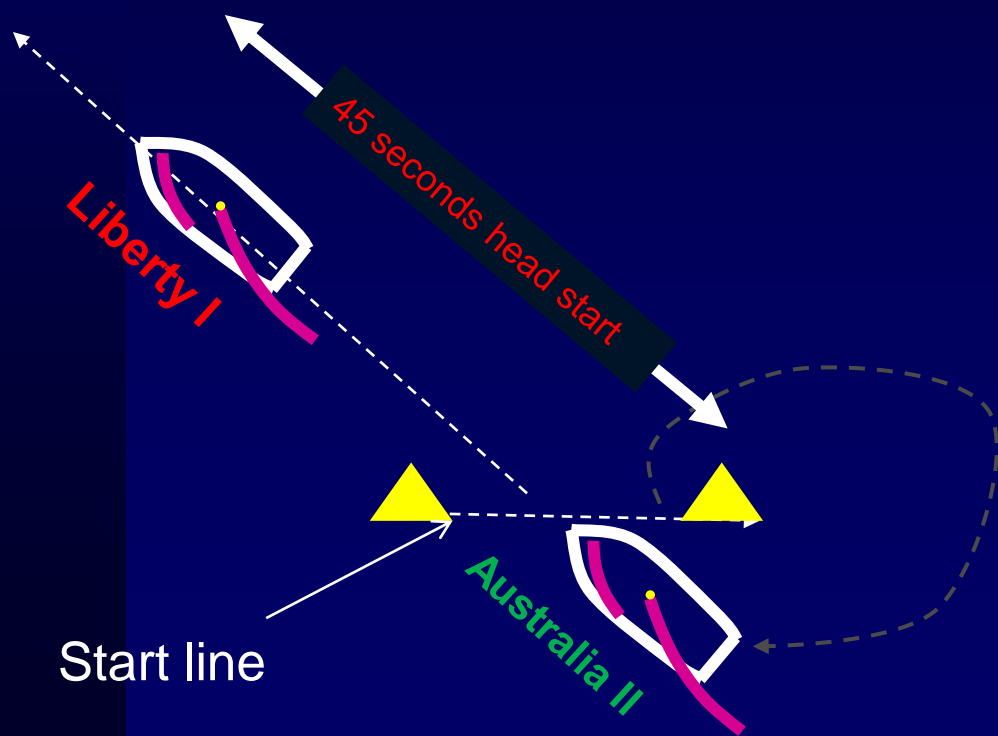
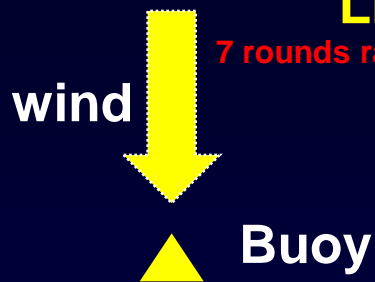
# Sailing - wind shift



# 25<sup>th</sup> American Cup – September 23<sup>rd</sup> 1983

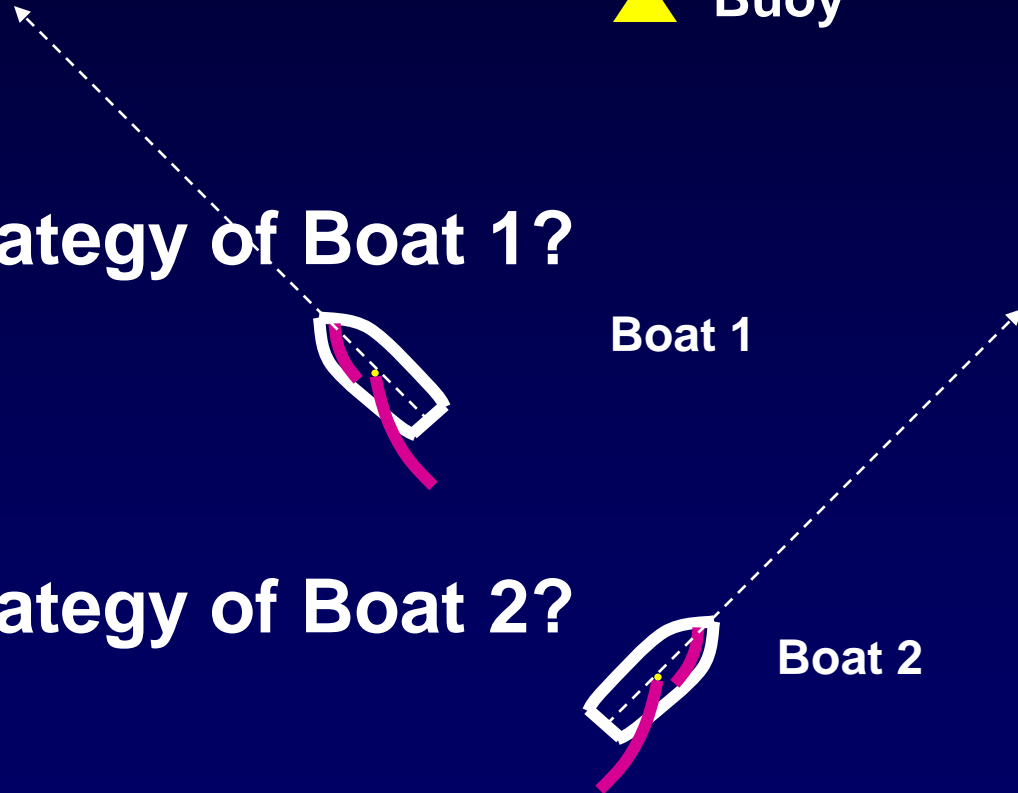
## Liberty I against Australia II

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



# 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 (ACCOMP) (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**