IBM R&D Labs in Israel - at a Glance (1000 people)

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IBM R&D in Israel - Milestones

1972
Joseph Raviv establishes the IBM Scientific Center in the Technion City

1972
The Haifa Research Group is born. First project done for an IBM US partner

1997
IBM Haifa joins the Research Division

1999
HDL Hardware Design Lab is established

2002
IBM R&D Labs in Israel - a cluster of labs is formed

2006
ILSL - Israel Software Lab formed consolidating 3 acquisitions

2008
STG Israel Lab is announced

Four Phases of Evolution

✧ Phase 1 – Scientific Center (seventies)
  ✧ Scientific collaboration with leading institutions
  ✧ Hire core talent
✧ Phase 2 – Expand into IBM Business Units (eighties)
  ✧ Establish areas of expertise
  ✧ Mix of R & D people
✧ Phase 3 – Joining IBM Research Division (nineties)
  ✧ Participate in strategy formation
  ✧ Work with external customers and collaborate globally
✧ Phase 4 – Growth by Acquisitions (21st century)
  ✧ Focus on Storage systems and information management
✧ Phase 5 - Owning P&L (???)
Growth

- **Organic:**
  - Research
  - Chip Design, Storage Development

- **Acquisitions:**
  - Ubique, iPhrase, Unicorn, WatchFire, Telelogic, FilesX
  - XIV
  - Diligent
  - Storwize
IBM Haifa Research Lab - Facts and Figures

- 450 people, including researchers, students, and business operations
- Largest IBM Research facility outside the US
- Spanning many IBM Research strategy areas

Storage systems, Systems management, Verification technologies, Collaboration, Information retrieval, Event Processing, Distributed Middleware, Software development, Optimization technologies, Machine learning, Services, Telco, Healthcare
IBM Israel Software Lab (ILSL)

unified communications

application security

embedded software development

instantaneous recovery

understanding information
IBM XIV:
Reinventing Storage

**Highlights:**
- Disruptive, new architecture for enterprise disk storage
- Founded in 2002
- Acquired by IBM in December 2007
- Moshe Yanai, former XIV CEO, today an IBM Fellow
- +1600 systems Shipped

**Revolutionary Architecture:**
- Automated Optimized Layout
- Powerful Self-Healing
- Tier 1 storage for all data at Tier 2 costs
- All features built-in
- No hotspots - high availability

**High-End Storage:**
- True reliability
- High performance
- Inherent scalability
- Rich features

**Unmatched TCO:**
- High capacity utilization
- Low power consumption
- Easy administration
- Single-tier system
The Unique R&D Environment of Israel

- Top world class universities:
  - Technion, Hebrew University, Weizmann (Nobel and Turing awards)
  - Highest publications / capita

- $1B VC investment in 2009
- In recent years ...
  - Over 250 companies sold through M&A
  - 100+ successful NASDAQ IPOs
  - 200 new start-ups established every year

- 3,000 technology companies
- 110 Israeli companies listed in NASDAQ - the second largest non-US country (after Canada)
- Over 80 Fortune 500 global corporations conduct leading edge R&D in Israel (IBM, Cisco, GE, Motorola, Philips, TI, SAP, EMC, ...) and in particular:
  - Intel’s second largest design center; low power and wireless missions - in Israel
  - Microsoft has two R&D center with research focus, reaching 500 employees
  - HP’s second largest R&D (due to acquisitions); a research center in the Technion
  - Google opened two R&D center, Yahoo! opened R&D center
- Israeli based leading companies: Checkpoint, Amdocs, Comverse, Nice, Orbotech, Zoran, Given Imaging...
Global Venture Capital Around the Globe

- **Bay Area**
  - 92 deals
  - $17B raised

- **New England**
  - 148 deals
  - $7B raised

- **Southern California**
  - 121 deals
  - $2B raised

- **New York**
  - 107 deals
  - $2B raised

- **United Kingdom**
  - 125 deals
  - $822.7M raised

- **France**
  - 83 deals
  - $461.1M raised

- **Denmark**
  - 18 deals
  - $167.8M raised

- **Germany**
  - 54 deals
  - $311.8M raised

- **Sweden**
  - 46 deals
  - $155.4M raised

- **Israel**
  - 112 deals
  - $1B raised

- **Beijing**
  - 37 deals
  - $398.9M raised

- **Shenzhen**
  - 7 deals
  - $71.9M raised

- **Shanghai**
  - 29 deals
  - $179.9M raised

- **Guangzhou**
  - 3 deals
  - $11.3M raised

Source: E&Y 2009 VC Investment Insights
The IBM Global Technology Unit

- Established in 2001
- In 2007, joint activities of the GTU and the Israeli hi-tech industry generates more than $1B in joint revenue
- Opportunities for cooperation evaluated with more than 800 Israeli hi-tech companies, engagements created with ~200 partners
- Since 2002, the Israeli IBM Innovation Center enables more than 300 local ISVs on IBM technologies
- In 2005, a framework for cooperation signed by IBM and the Office of Chief Scientist, Ministry of Industry of Trade, State of Israel

The GTU has become a (partial) remedy to the insignificance of the local market!
Why is difficult to grow our impact?

- The global companies structure and philosophy
  - The globally integrated enterprise
  - The US centric view

- Remoteness (geo, time, language, culture, …)

- No local market

- Not cost-effective

- Lack of business skills and business success track record

- Israel has severe scaling limitations  (number of engineers, PhD’s …)
Summary

The main challenge is to see how to grow the impact of Israel R&D on global IBM
  - How to get ownership of a P&L?

There are opportunities for growth through further acquisitions in Israel
  - How to make sense of hordes of start-ups in Israel?
Thank you