Sources of Innovation

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Former Chief Scientist – State if Israel

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Managing Venture Capital Funds Since 1993

The Yozma Government Program

R&D Expenditures as % of GDP

Israel	4.3
Sweden	3.7
Finland	3.4
Japan	3
USA	2.7
South Korea	2.7
Germany	2.5
OECD (average)	2.2

#1 in the world!

Should we learn from the Israeli example?

1992

No Venture Capital Funds

Success in R&D - Failure in Marketing

Few IPOs, No M&As

Lack of international involvement

VC

2002

~60 Venture Funds

$10B raised by VCs

$17B M&A deals

#2 in Nasdaq

Cisco, IBM, Intel, Microsoft…

American & ROW VCs

Venture Capital –
an Engine for Growth for High-Tech Companies

Modern Economic Environment Requires

- **Intense Global Competition ➢ *VC***
- **Need to go international quickly ➢ *VC***
- **Short product life ➢ Higher R&D spending ➢ *VC***
- **Larger investment per Company ➢Deep pockets ➢ *VC***
- **Need for management and marketing assistance ➢ *VC***

Government's Entry Into Business – Preconditions

- **Government as a Catalyst**
- **Lowered Risk**
- **Market Failure Conditions**
- **Predetermined Exit Conditions**
- **No Government Control**
- **Indirect Investments (Funds)**

Yozma Venture Capital (1)

Mission: To create the venture capital market in Israel

Method: To entice the private sector and foreign investors to set up new VC funds

To participate in the inv. Committee in the new VC funds

To secure an obligation of the new VC funds to invest in start-up companies in Israel

Accomplished through: Establishment of a $100M investment company

Use of proceeds: Establishment of 10 drop down funds together with strategic partners.

15 Direct investments

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Yozma Venture Capital (2)

Basic principles:

- Investment of $8M in each drop-down fund (minority position)
- A 5 year option to Yozma's partners to buy out the Government's share at predetermined conditions

Results:

- 8 out of the 10 drop-down funds have exercised their option and bought out the Government
- 9 out of the 15 companies Yozma Venture Capital has invested in directly, went public or have been acquired
- The Israel Venture Capital industry has been established

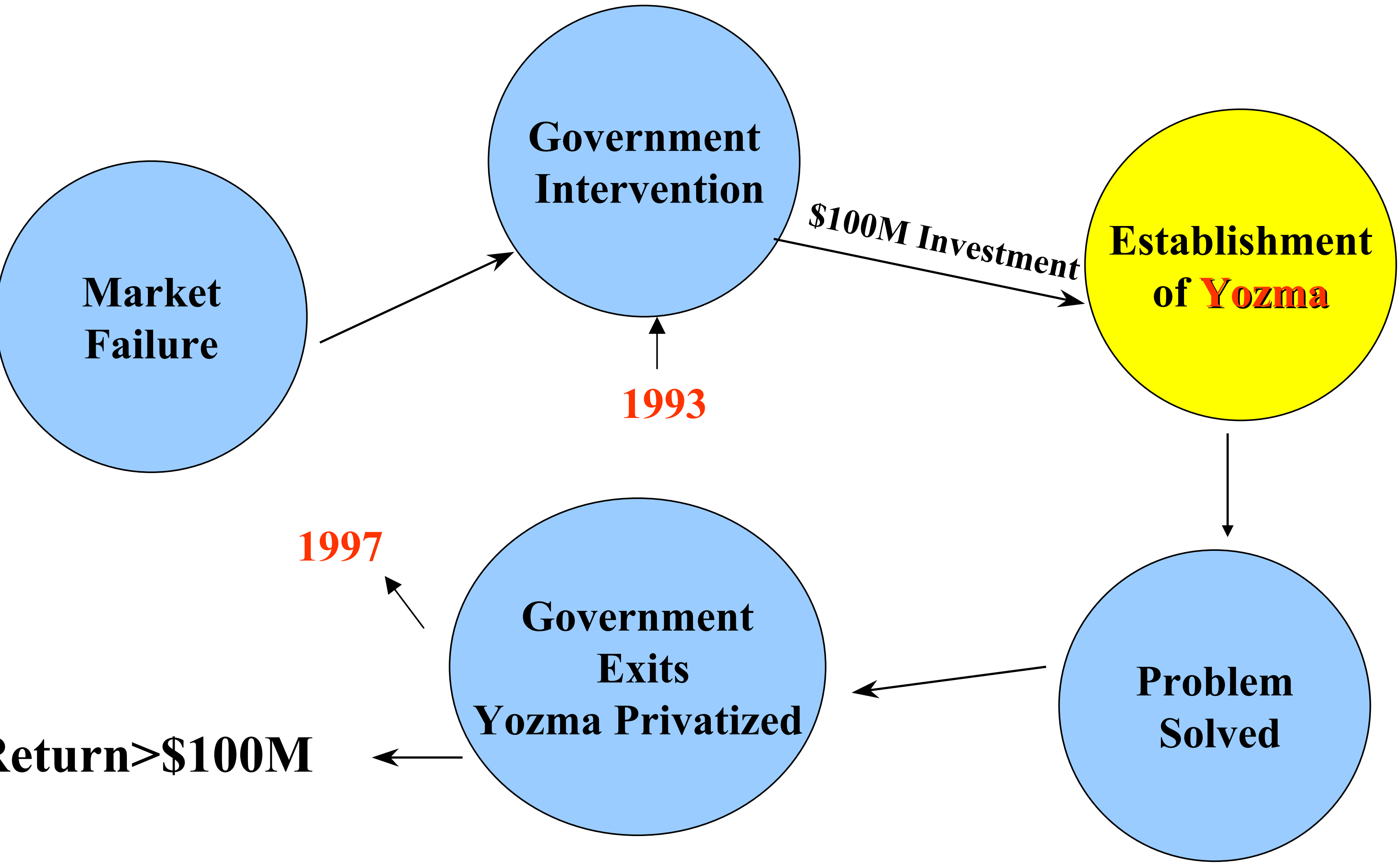
Yozma Drop-Down Funds (1)

FUND	PARTNERS
•*Eurofund*	Daimler-Benz, DEG (Germany)
•*Gemini*	Advent (USA)
•*Inventech*	Van Leer Group (NL)
•*JPV*	Oxton (US/Far East)
•*Medica*	MVP (USA)
•*Nitzanim-Concord*	AVX, Kyocera (Japan)
•*Polaris*	CMS (USA)
•*Star*	TVM (Germany) & Singapore Tech
•*VERTEX*	Vertex International Funds (Singapore)
•*Walden*	Walden (US)

Yozma Drop-Down Funds (2)

FUND	CAPITAL MANAGED ($MM)	
	Original size	*Today*
•*Eurofund*	20	90
•*Gemini*	25	350
•*Inventech*	20	40
•*JPV*	20	580
•*Medica*	20	70
•*Nitzanim-Concord*	20	280
•*Polaris*	20	645
•*Star*	20	400
•*VERTEX*	20	250
•*Walden*	25	175
	210	2,880

The Government as a Catalyst



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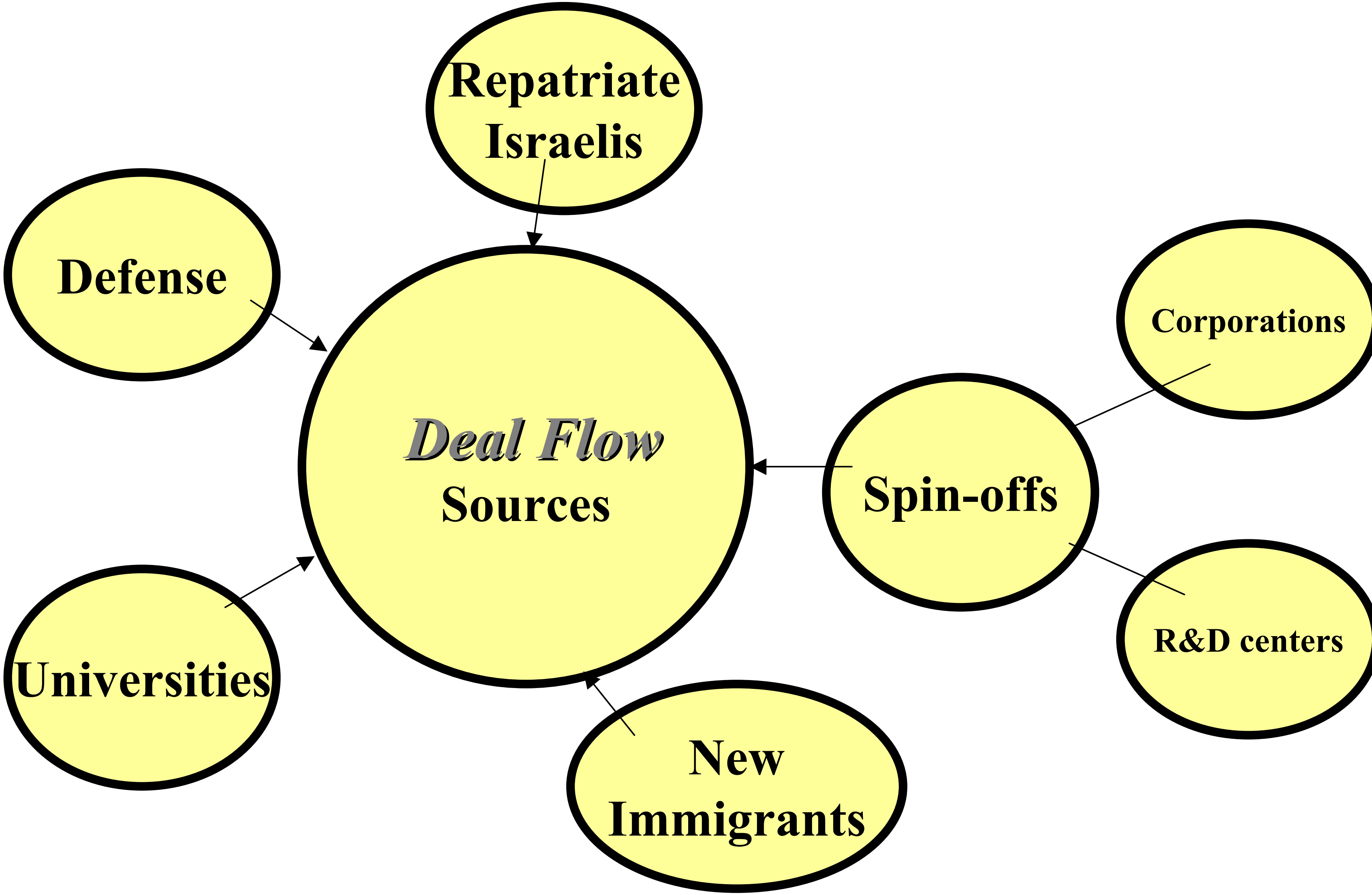
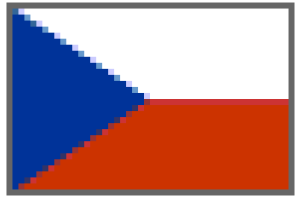
Deal Flow Sources

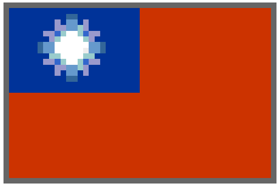


Countries Following the Yozma Example

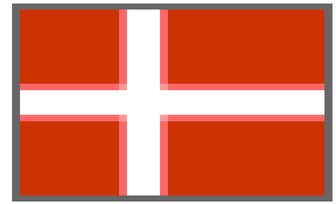
Czechoslovakia



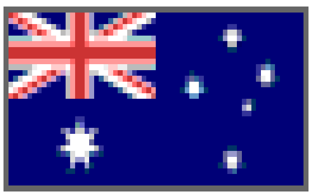
Taiwan



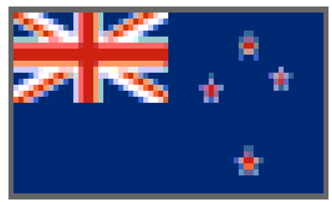
Denmark



Australia



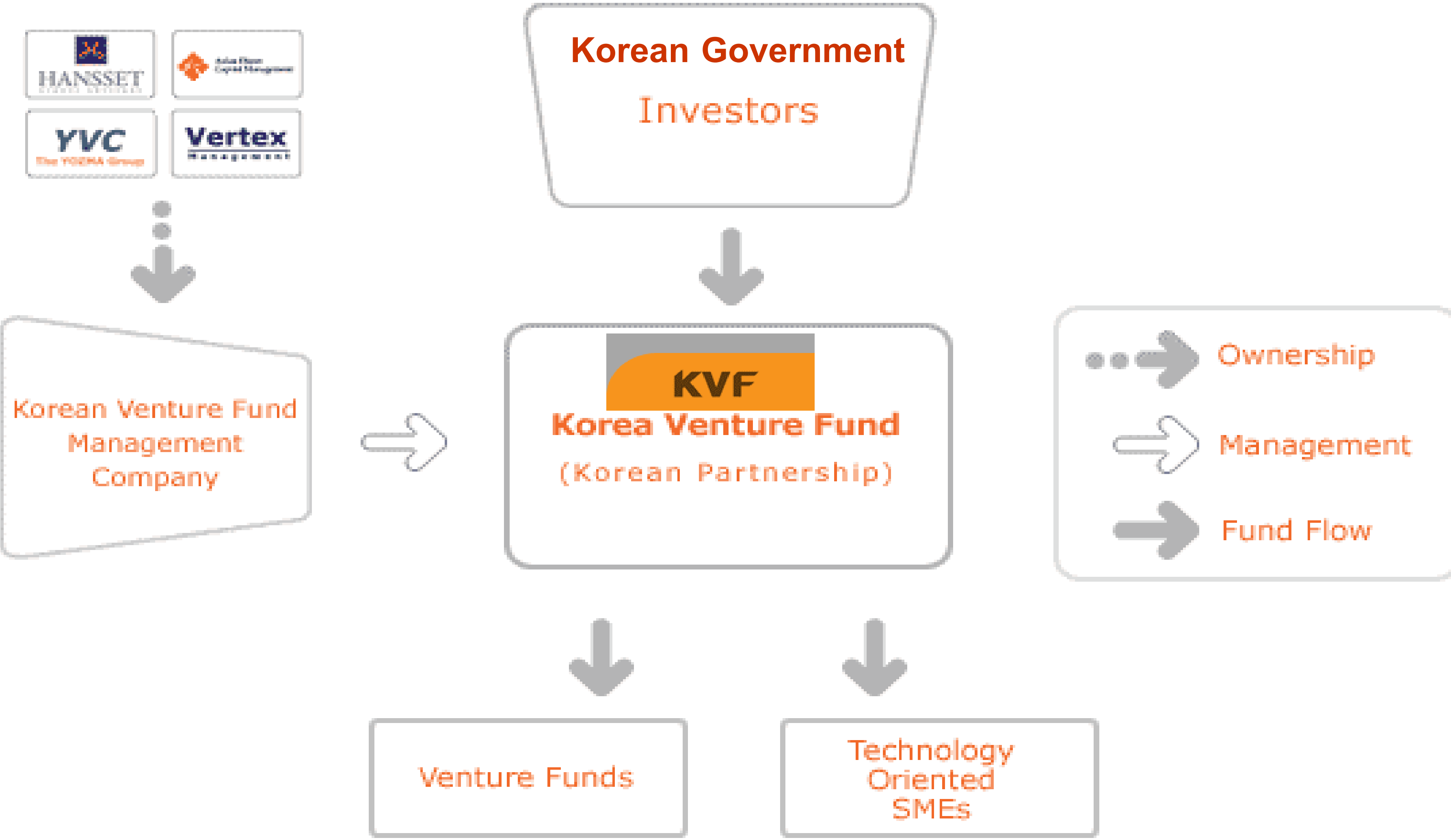
New Zealand



Korea

South Africa

Korea Venture Fund



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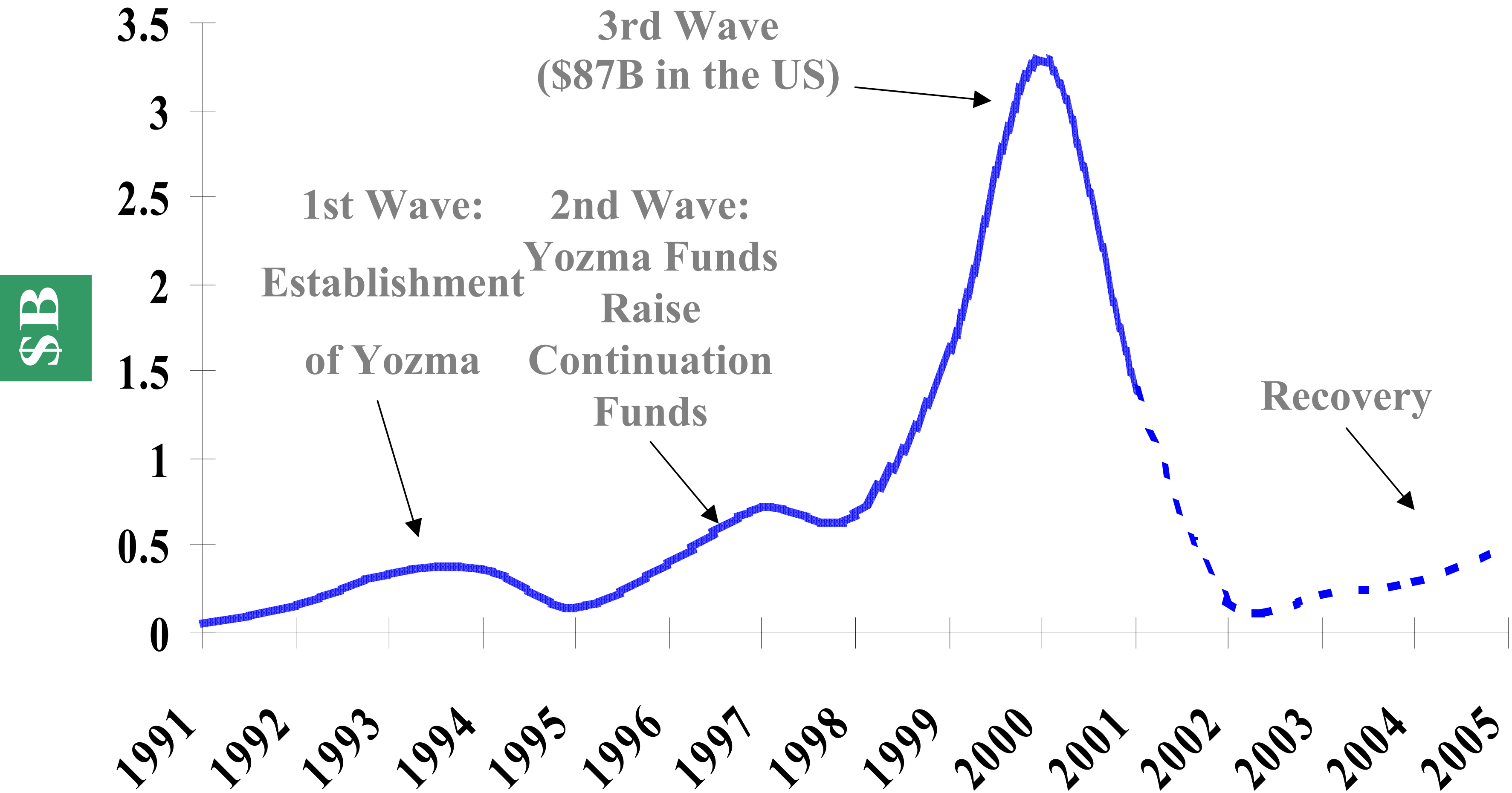
Venture Capital Raised



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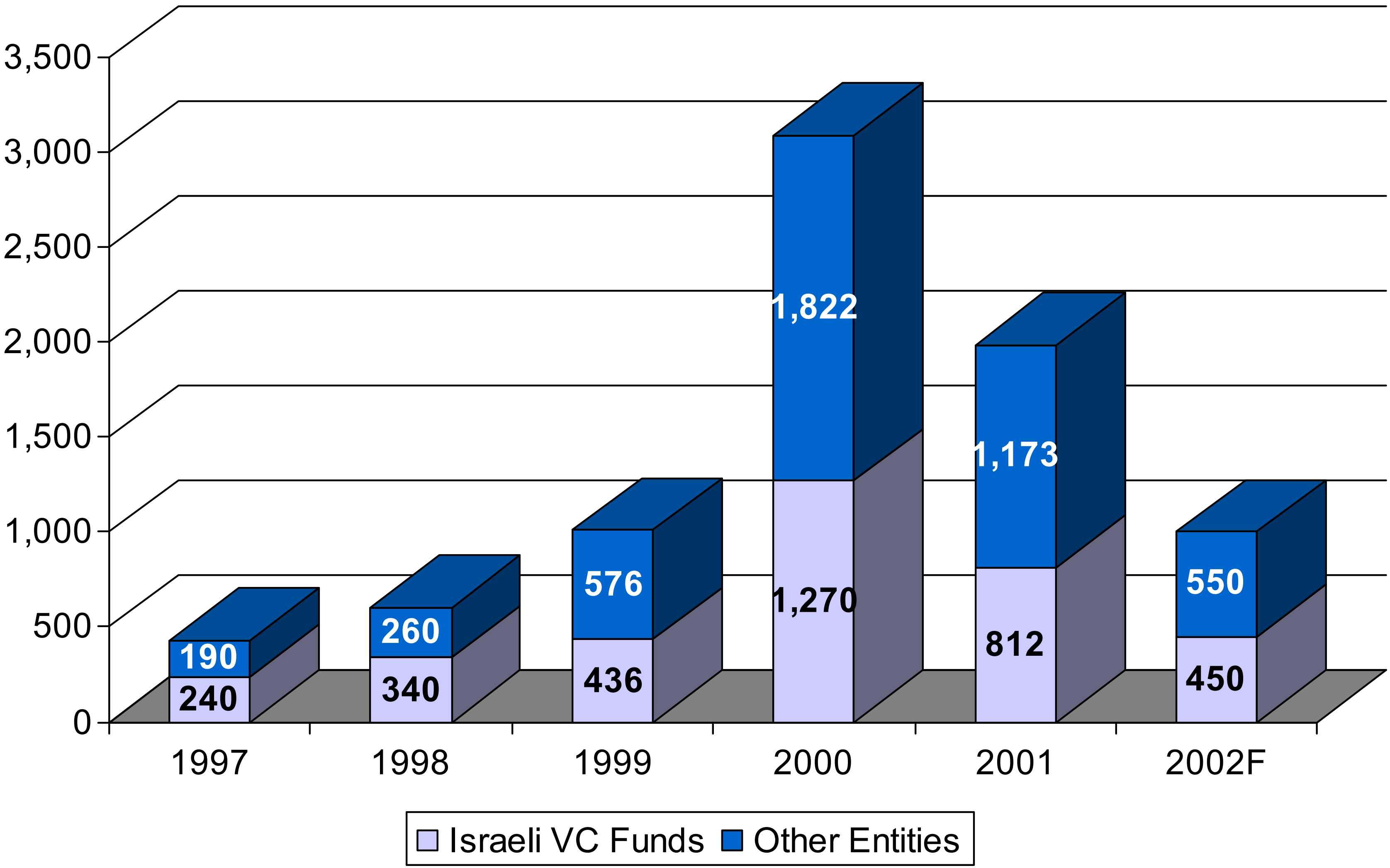
Total Amount Raised by Israeli



Source: IVC Research Cen

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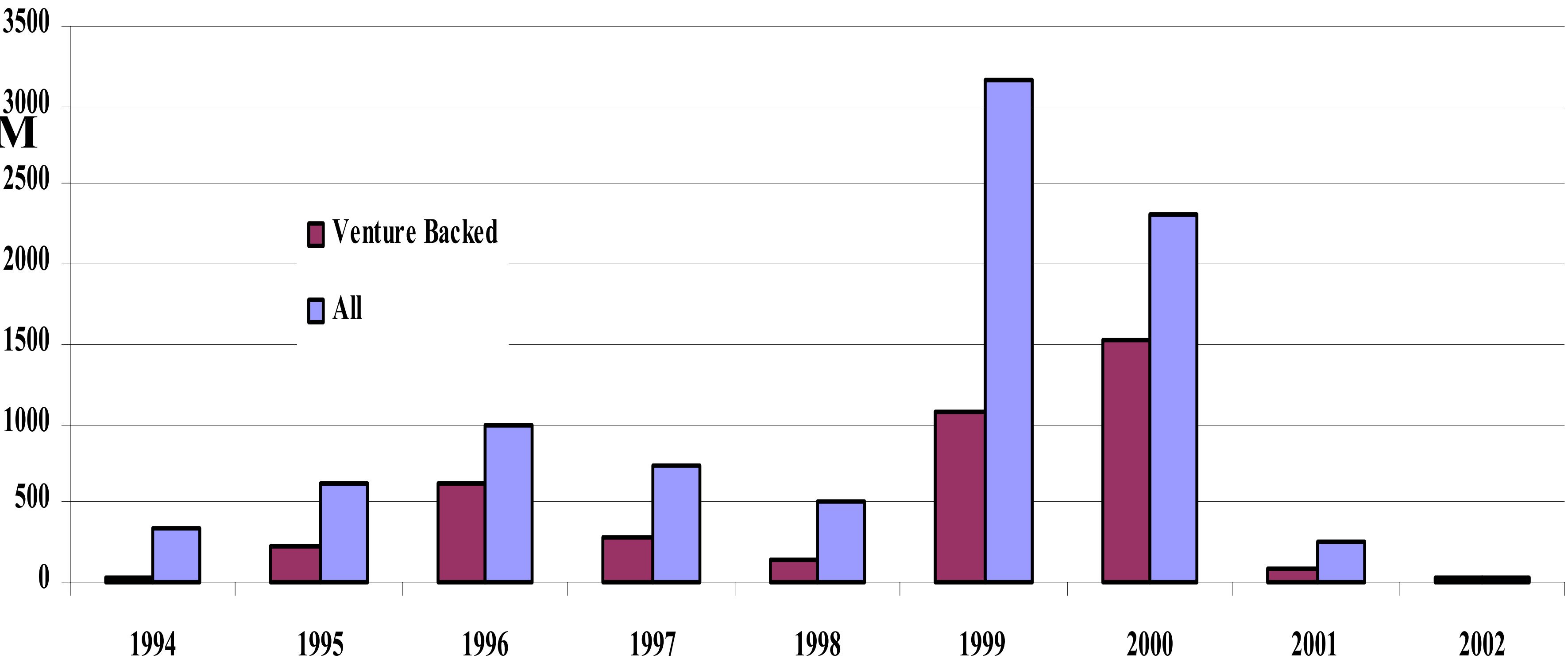
Capital Raised in US Public Offerings of Israeli Companies (94'-01')



In total: during the past 8 years more than 100 Israeli companies raised ~$9B ; ~50% of them were venture-backed

70% of all the money in the last 20 years was invested in 99' & 00'

Source: IVC Research Cen

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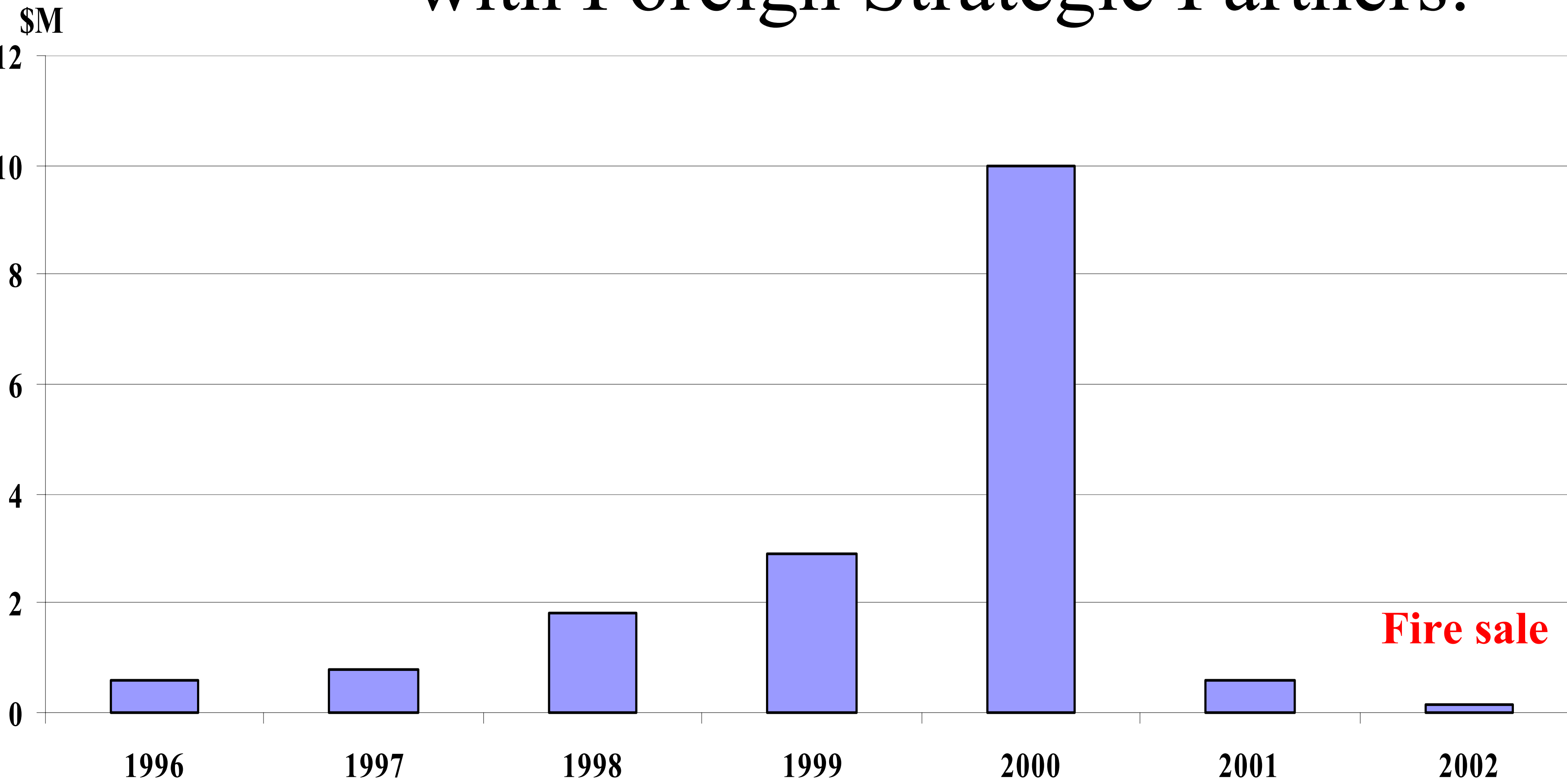
M&As of Israeli Technology Companies with Foreign Strategic Partners:



Source: IVC Research Cer

THE ISRAELI OPPORTUNITY

Technology Hotbed

- One of the most highly educated workforces in the world
- R&D expertise & history of creating premier companies
- Tremendous concentration of technology leaders

Mature, Developed & Stable Economy

- Entrepreneurial culture
- Extensive commercial ties with global community
- Modern infrastructure for technological development
- Regional conflict has no impact on business operations

Unrivalled Value Proposition

- High quality, dedicated employees at lower cost
- Generous R&D grants and tax breaks

The Technology Incubators Program

Technology Incubators - Mission Statement

‘Technological incubators support organizations that give fledgling entrepreneurs - an opportunity to develop their innovative technological ideas and set up new businesses in order to commercialize them”.

Technology Incubators – Background / Main Goals

- **Initiated in 1991**
- **Operates under the Ministry of Industry & Trade**
- **Located all over Israel, including Periphery**
- **Situated near Academic Institutes**
- **Built an infrastructure for:**

Exploit entrepreneurial resources of immigrants and non-immigrants

‘Keeping the Brains’ in Israel

Employment for Immigrant Scientists

Production / Export Encouragement

CURRENT STATUS

(AT THE END OF 2001)

- **23 Technology incubators (some with a private ownership component**
- **~8 Projects in each incubator**
- **735 Graduate Projects**

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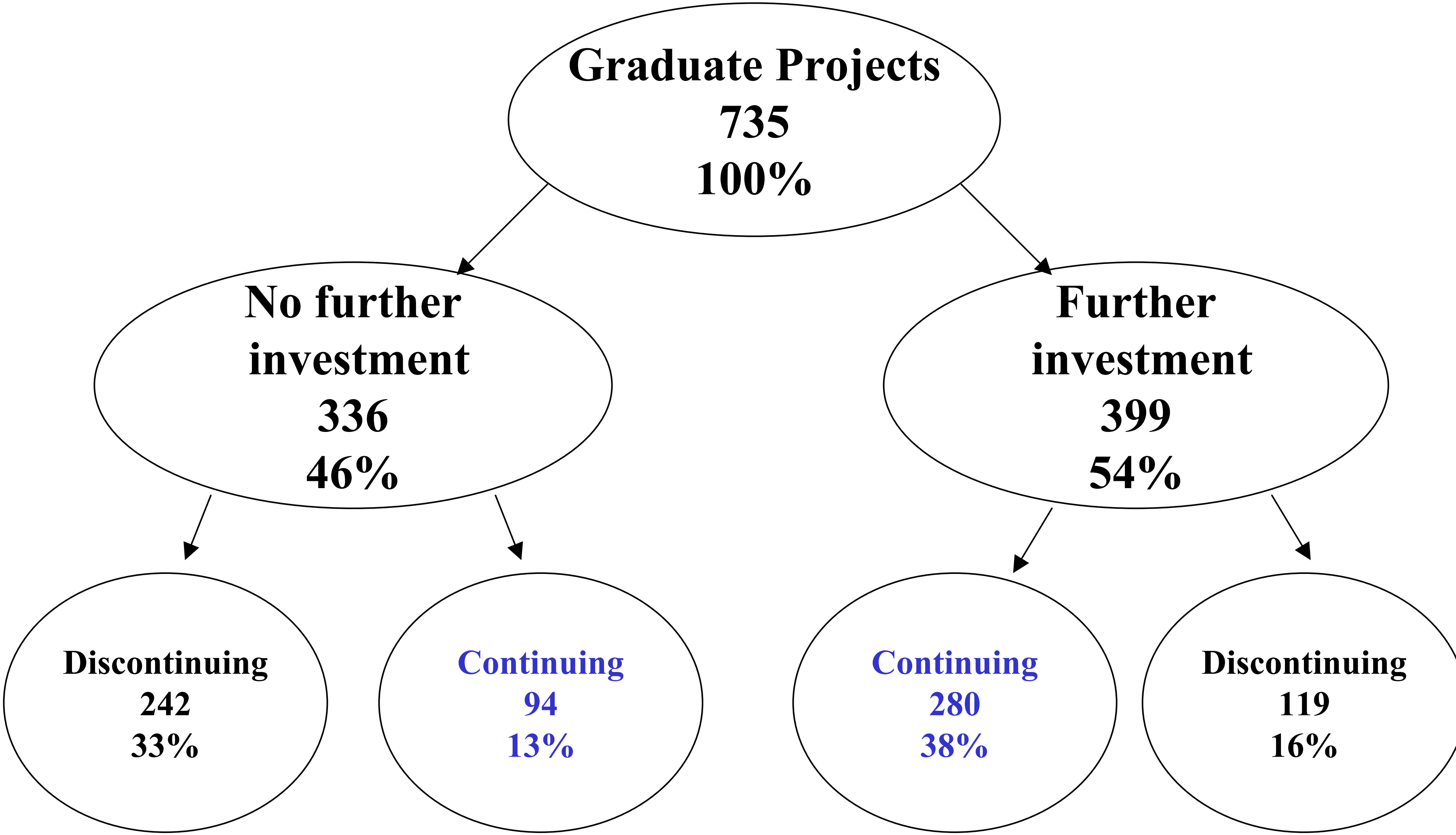
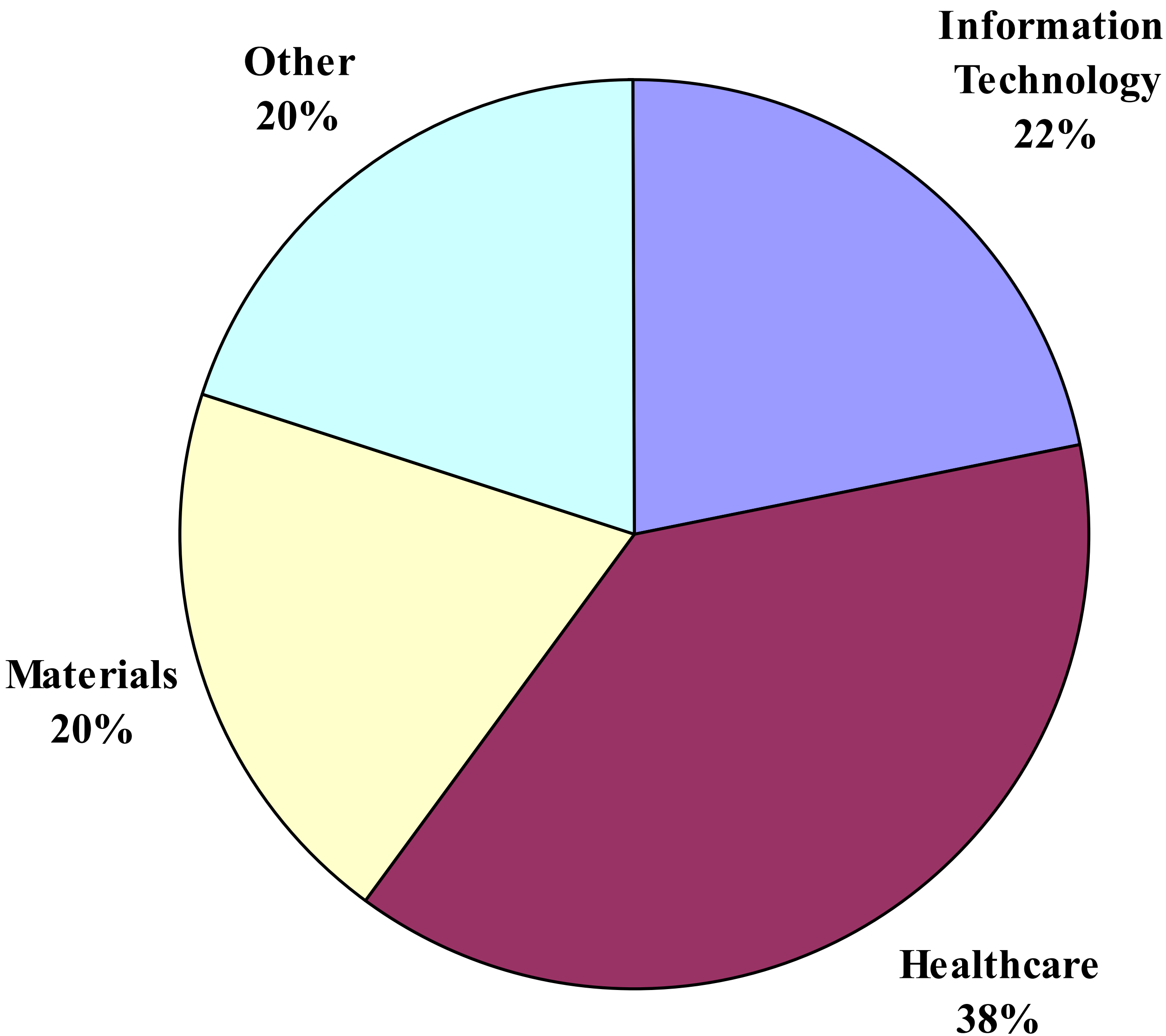
Graduate Projects (Jan. 2002)



Projects by Industry Segment



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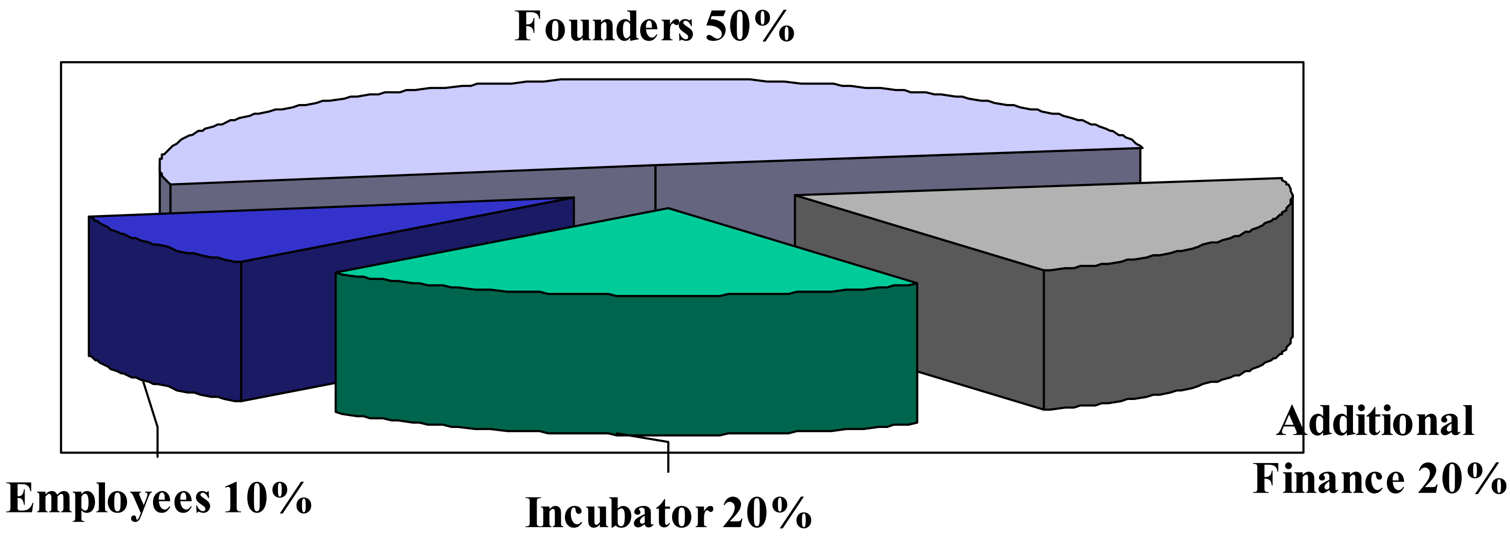
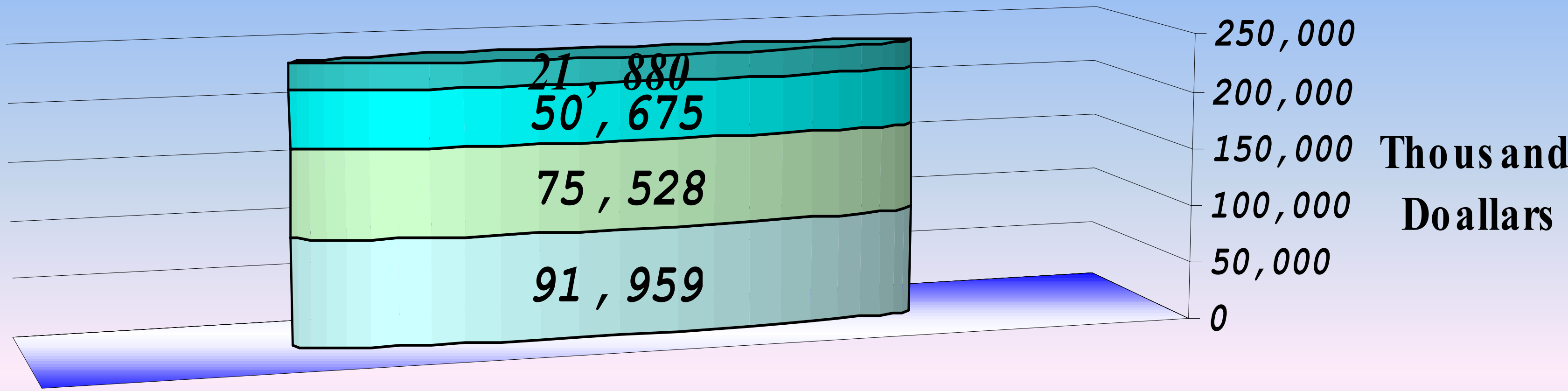
Fund Raising / Ownership – Day 1

Projects start with $400-500k, 18-24 months

New Company - Holdings



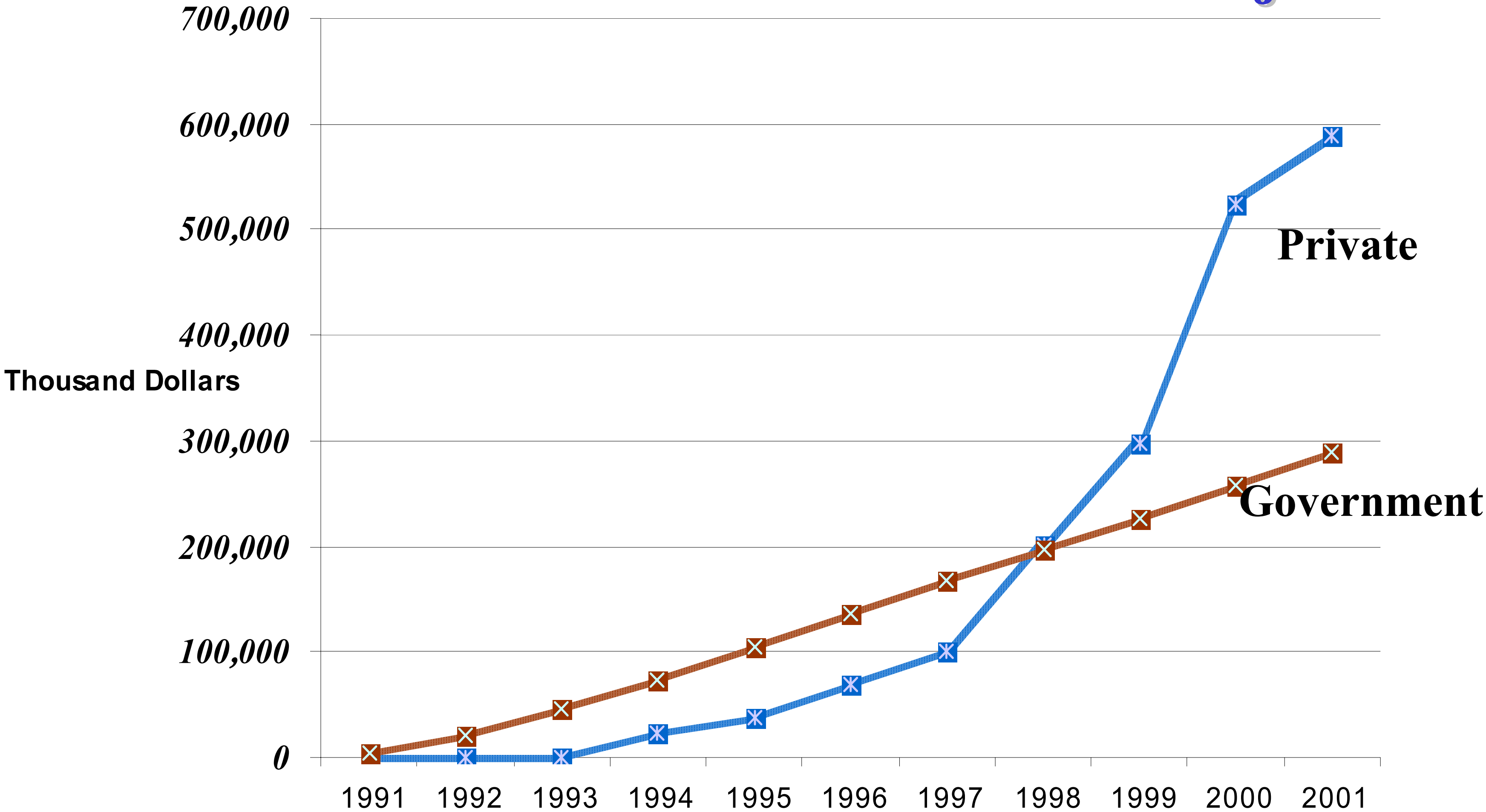
Private Invesments in incubators' graduate projects Since 1997



Total investments since 1997 $240,042K

	Investment K$	No. of projects
Forth Round	21880	18
Third Round	50675	38
Second Round	75528	101
First Round	91959	253

Government Vs. Private Investments in Incubator Graduate Projects



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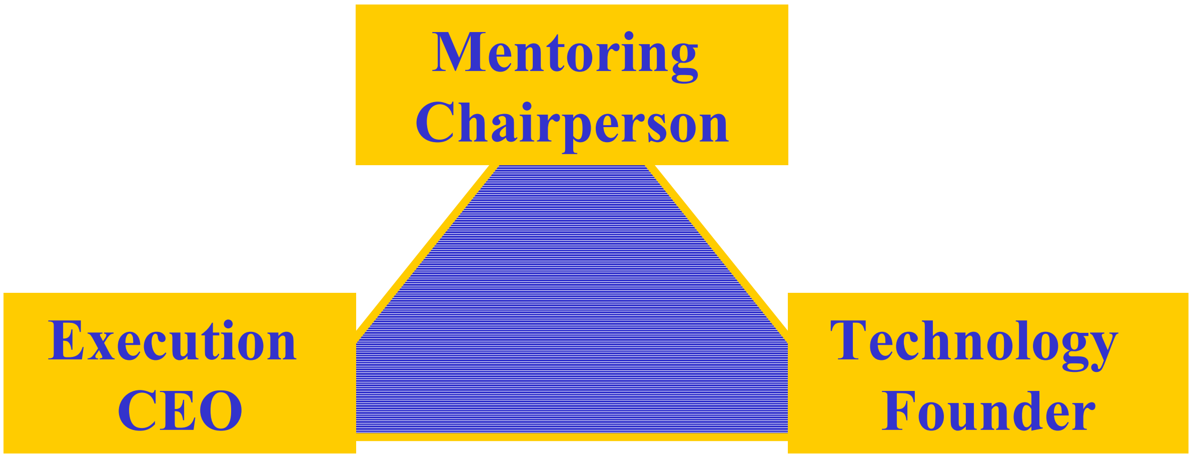
Screening Process

- Team, Team & Team
- Technology – Feasibility, Richness, IP
- Market – Size, Growth, Penetration

- Can we help? Budget, Expertise
- Can we identify Exit strategies?

Incubation Period

- Business Planning & Modeling
- Marketing Intelligence & IP Strategies
- Global Business Development & Executive Mentoring
- Infrastructure & Administration



Thank You

Win X4 ALL

[a Single Incubator Example]

Incubator Projects -

Since 1997, 34 projects received $10M from the Incubator and 17 of them raised additional $90M during 99-02 (Redwood, Morgan Stanley, Polaris…)

Incubator Owner -

Annual Investment: $300K for Incubator operation (cost: $550K) for 20% of each project

Additional $400K annually directly into selected projects for an additional 20%

In total, during the last 6 years, a $6M investment became $26M (IRR>100%)

Project co-Investors –

$100K for 20% in day one ; Total investment to breakeven: $3-5M

EXIT period of ~8 years ($20M+) ; Option to increase share ; IRR Yield (6 years) = 64%

State -

Investment in 6 years: $7.2M

Income from employee & corporate taxes: $50M

300 workplaces created

3% royalties from each project

TKSignal – Radio Pharmaceuticals. The company is developing nuclear small molecules for the diagnostic and monitoring of cancer using PET imaging modality.

Delivery – Oral Drug Delivery. The company is developing an innovative platform that will enable the oral delivery of peptides and poorly-soluble drugs.

Elastethic – Skin Extension (1'st) – the company is developing a bio-chemical substance that will enable extension the skin in traumatic cases.

PharmaSense – BBB delivery – the company is developing chemical formulations (Antisense based) for treatment of CNS diseases.

FIT Biotech – Fertility treatment – the company is researching a bio-technological immuno- protein, that will improve fertility.

OptoTech – Laser for Glaucoma – the company is developing a CO2 laser for the treatment of Glaucoma, by automating the Non-Penetrating procedure.

Relaxis – DHF Cardiac assist device – the company is developing an implantable cardiac assist device for the treatment of Diastolic Heart Failure.

Cellergy – Electro-chemical printing, the company is developing screen printing technology for the manufacturing of EC capacitors.

Lupus – Lupus treatment (OCS Review) – the company is developing a line of products, related to the Lupus disease including: diagnostic kit, plasma-pheresis (device) and peptide drug.

Thrombotech – Thrombolytic Therapy – the company is developing biotechnology drug for the treatment of acute thrombolytics events (AMI, PE, Stroke)