

# A Survey of Venture Capital in Pittsburgh 1989

Conducted by

The Enterprise Corporation of Pittsburgh

Sponsored by

Ben Franklin Technology Center of Western Pennsylvania

Mellon Bank

Pittsburgh High Technology Council

**Price Waterhouse** 

Reed Smith Shaw & McClay

## Venture Capital in Pittsburgh, 1989

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## Venture Capital in Pittsburgh

## Introduction

Pittsburgh continues to emerge from its smokestack city image to one that is vibrant and "most liveable."

In this third annual survey of venture capital activity in Pittsburgh, The Enterprise Corporation has quantified some of the developments over the past year in the active local venture capital community.

This report is organized in three sections: Pittsburgh Venture Capital Firms, Information on the Investments of these Firms, and Profiles of Pittsburgh Venture Capital Firms.

Here are some of the highlights of the contents:

- (1) Fourteen venture capital firms have headquarters or regional offices here. Eleven of these firms are based in Pittsburgh. In 1988, Hillman, a long time Pittsburgh-based fund, moved its headquarters to California. Also, Kopvenco's portfolio was purchased by another local fund when Koppers, its parent, was sold. No new funds were founded in 1988.
- (2) The venture capital firms here are diverse in size, structure, and the type of firm in which they will invest. This year, funds again reported a broad, diversified focus in investment interests: we have funds which invest solely in the seed or start-up stage, and others which invest solely in management or leveraged buyouts of mature, on-going businesses. These latter funds often do not consider themselves as "venture" capital firms, although they are clearly providing risk capital for these transactions.
- (3) At the end of 1988, almost \$280 million was under management by the eleven firms based here. This is not a significant change for the total for these eleven funds compared to last year. For all fourteen firms, the total capital under management was nearly \$613 million.
- (4) The funds headquartered here at the end of 1988 have \$138 million available to invest. Approximately half of the money under management has been invested or committed to specific portfolio companies.
- (5) In 1988, nearly \$14 million was invested in Pennsylvania firms. This is almost identical to that invested in 1987; however, 65% of these investments were first-time investments in firms exactly opposite of last year, when follow-on investments predominated.
- (6) We estimate that 25 companies here have raised over \$170 million in venture capital financing. This is \$50 million more than we reported last year. Undoubtedly, we have missed some; but the trend is clear: Pittsburgh companies are attracting outside professional financing.
- (7) For the first time, we were able to gather information on the employment figures of companies which have received venture capital financing from funds with headquarters or regional offices here. Over 10,000 people are employed in companies that have raised money from these funds. Most of these people work in southwestern Pennsylvania. We anticipate this number to grow over the years as early-stage start-up companies experience rapid expansion and success.

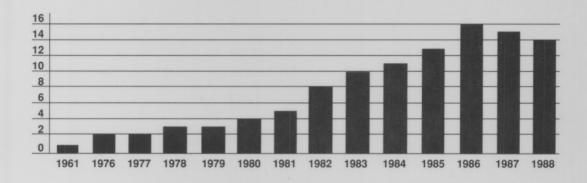
We would like to thank the following organizations for their financial support of this survey: Ben Franklin Technology Center of Western Pennsylvania; Mellon Bank; Pittsburgh High Technology Council; Price Waterhouse; and Reed Smith Shaw & McClay.

The Enterprise Corporation of Pittsburgh June 1989

## By Date of Formation

The number of venture capital and leveraged buyout (LBO) firms which have had headquarters or regional offices here has grown dramatically in the last several years. In 1961, there was one venture capital firm located in Pittsburgh; by 1988, there were 14 firms located here.

#### **Active Number of VC Firms**



The following list represents the 14 firms with headquarters or regional offices here as of December 31, 1988. All but three of these firms are headquartered in Pittsburgh.

Venture Capital Firm	Date of Formation	Home Office
Hillman Ventures, Inc.	1976	Menlo Park, CA
Fostin Capital Corporation	1982	Pittsburgh, PA
PNC Venture Capital Group	1982	Pittsburgh, PA
Robinson Venture Partners	1982	Pittsburgh, PA
Security Pacific Venture Capital Group	1982	Costa Mesa, CA1
C&L Ventures	1983	Pittsburgh, PA
VenWest, Inc.	1983	Pittsburgh, PA <sup>2</sup>
Loyalhanna Venture Fund	1984	Pittsburgh, PA <sup>3</sup>
CEO Venture Fund	1985	Pittsburgh, PA
Maverick Funds	1985	Pittsburgh, PA
Pittsburgh Seed Fund	1985	Pittsburgh, PA
Wesmar Partners	1985	Pittsburgh, PA
ALCOA/Advent Venture Capital Fund	1986	Boston, MA
APA/Fostin Pennsylvania Venture Capital Fund	1987	Pittsburgh, PA

#### Notes

In 1988, Kopvenco, a \$40 million fund and wholly-owned subsidiary of Koppers Co. Inc. was acquired by Beazer PLC of England. Its portfolio was purchased by Trivest.

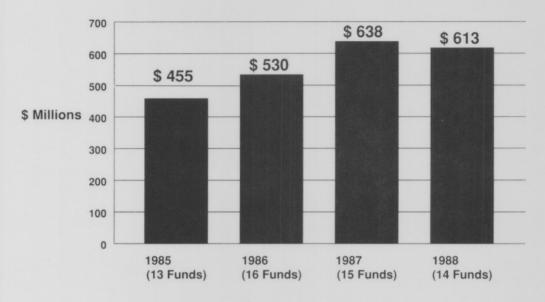
<sup>&</sup>lt;sup>1</sup> Security Pacific, headquartered in California, was founded in 1960; the PA office was established in 1982.

<sup>&</sup>lt;sup>2</sup> In 1989, VenWest announced it would not make any investments in new firms, and is not profiled in this survey.

<sup>&</sup>lt;sup>3</sup> Listed as Trivest Venture Fund in the 1988 A Survey of Venture Capital in Pittsburgh.

## Capital Under Management/All Firms

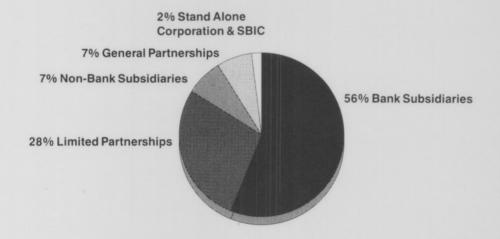
By the end of 1988, nearly \$613 million was under management by the 14 venture capital firms with headquarters or regional offices in Pittsburgh.



#### Note:

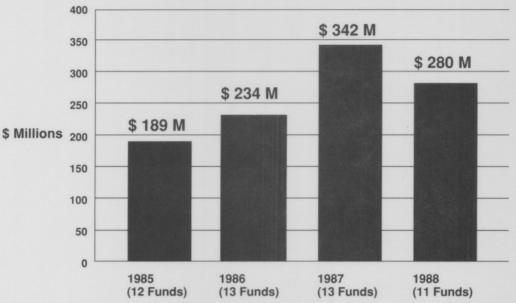
Includes \$23 million annual investment for Hillman Ventures, Inc. in 1988, \$45 million for 1987, and \$25 million for 1985 and 1986, the approximate annual investments in those years. No data on total under management for Hillman Ventures.

Bank subsidiaries and limited partnership funds together accounted for over 80% of the total capital under management at the end of 1988.



## Capital Under Management/ Pittsburgh-based Firms

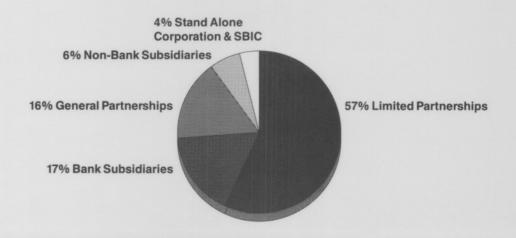
By the end of 1988, 11 Pittsburgh-based venture capital firms managed almost \$280 million in capital. The data differ from the previous chart primarily because of the large effect of deleting California-based Security Pacific Venture Capital Group.



#### Note:

Includes \$45 million annual investment for Hillman Ventures, Inc., in 1987 and \$25 million for 1985 and 1986, the approximate annual investments in those years when Hillman was Pittsburgh-based.

For Pittsburgh-based firms, limited partnership and bank subsidiary funds together accounted for over 70% of the total capital under management.



## Capital Under Management/Ranking

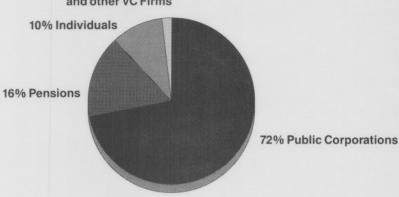
Hillman Ventures, Inc. is one of the largest venture capital firms in the U.S. and we estimate that it is the largest venture capital firm with headquarters or regional offices in Pittsburgh.

Venture Capital or Management Firm	Capital Under Management (millions)
14 Funds Active in 1988:	
Hillman Ventures, Inc.	\$ 23.0*
Security Pacific Venture Capital Group	300.0
PNC Venture Capital Group	59.1
Loyalhanna Venture Fund	51.0
APA/Fostin Pennsylvania Venture Capital Fund	40.4
Wesmar Partners	40.0
Maverick Funds	25.0
Fostin Capital Corporation	21.0
VenWest, Inc.	18.2
ALCOA/Advent Venture Capital Fund	10.0
CEO Venture Fund	10.0
Pittsburgh Seed Fund	10.0
Robinson Venture Partners	3.5
C&L Ventures	1.7
*Amount invested in portfolio firms in 1988 only.	

## Sources of Capital

Over 70% of the capital for the 14 funds under management by venture capital funds with headquarters or regional offices here comes from public corporations. Pension funds account for another 16%.

2% Universities, Foundations, and other VC Firms

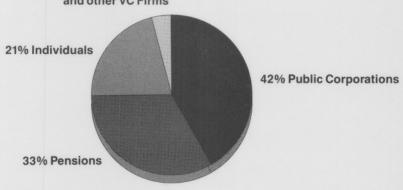


Note:

Does not include CEO Venture Fund.

Of the 11 venture capital funds headquartered here, capital from public corporations and pensions represents 75% of the funds under management. This chart differs from the one above because of the effect of deleting Security Pacific Venture Capital Group.

4% Universities, Foundations, and other VC Firms



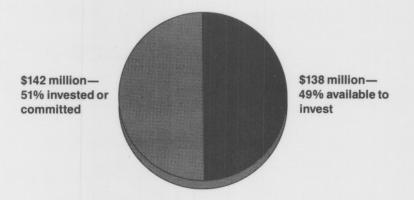
Note:

Does not include CEO Venture Fund.

## Portion of Capital Invested

Over 50% of the capital under management by venture capital firms headquartered here has been invested in specific investments as of the end of 1988.

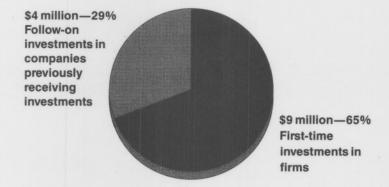
Total capital under management - \$280 million



## Investments in Pennsylvania Firms in 1988

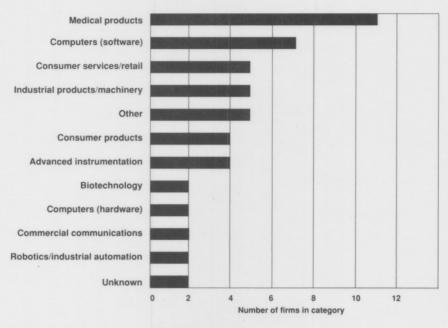
Nearly \$14 million was invested in Pennsylvania firms in 1988. Over \$9 million of this was in new investments.

Total investments in Pennsylvania firms in 1988 – \$13.8 million



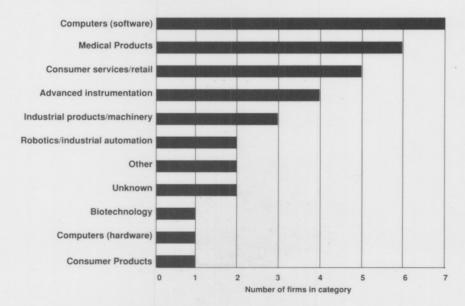
## Pennsylvania Firms Receiving Investment: By Industry

Medical product firms represent the highest number of investments in Pennsylvania by venture capital firms with headquarters or regional offices here.



Note: Based on information about 51 portfolio companies.

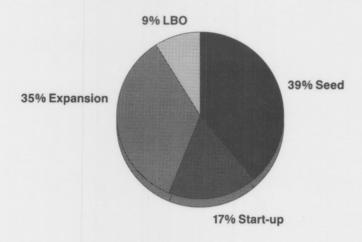
In the Pittsburgh area alone, however, computer software firms represent the highest number of investments by venture capital firms.



Note: Based on information about 34 Pittsburgh-based portfolio companies.

## Pennsylvania Firms Receiving Investment: By Stage

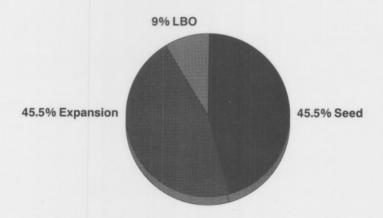
Over half of the Pennsylvania-based firms receiving investment received their investment at the seed and start-up stage of development.



Note:

Based on information on 46 portfolio firms out of 51 Pennsylvania firms receiving investment.

In 1988, however, firms received their investments at the seed and expansion stages equally.



Note:

Based on information on 11 Pennsylvania-based portfolio firms receiving investment in 1988.

## Definition of Investment Stages

Definitions are from Pratt's Guide to Venture Capital Sources.

#### Seed:

Funds provided to prove an idea or concept. May involve product development, but rarely involves marketing.

#### Startup:

Funds provided for product development and initial marketing. Companies may be in the process of being organized, but have not sold their product commercially. Usually, such firms would have assembled the key management, prepared a business plan, made market studies, and generally prepared themselves to do business.

### **Expansion:**

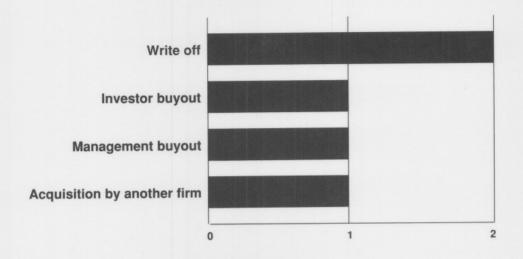
Funds provided to inititate and/or expand commercial manufacturing and sales. Funds typically used for working capital needs, marketing, and product development.

### Management/Leveraged Buyout:

Funds provided to enable an operating management group to acquire a product line or business from either a public or private company.

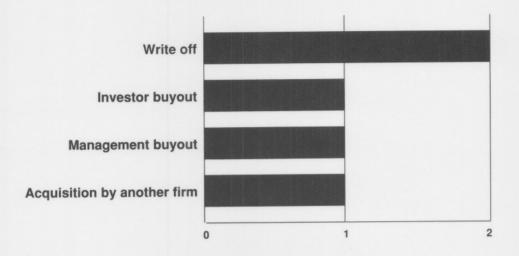
## Liquidation of Investments

Five investments were liquidated in 1988 by venture capital firms headquartered here.



## Liquidation of Investments

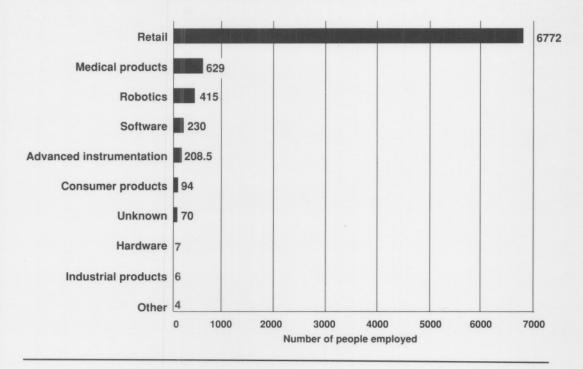
Five investments were liquidated in 1988 by venture capital firms headquartered here.



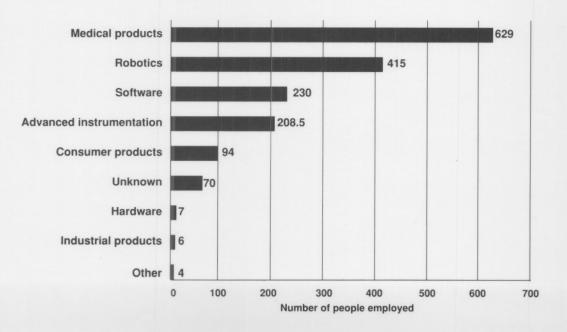
## Pennsylvania Firms Receiving Investment: Employment

Over 10,000 people are employed in Pennsylvania in portfolio firms which have received investment by venture capital firms here.

Over 8400 of these people are employed in southwestern Pennsylvania in the 34 portfolio companies located in this area. Over 80% of these employees work in a retail business.



Excluding the high employment by retail businesses, medical product and robotic businesses represent over 60% of the employment by portfolio companies which have received venture capital in this area.



## Selected Pittsburgh Firms Receiving Venture Capital

Firm	Total Capital Raised <sup>1</sup> (\$ millions)	Date of Initial Venture Capital
Cimflex Teknowledge <sup>2</sup>	\$ 40.0	1977
Medrad	\$ 26.0	1982
Formative Technologies, Inc.	\$ 23.0	1983
Carnegie Group Inc <sup>3</sup>	\$ 18.2	1984
Tartan Laboratories, Inc.	\$ 15.6	1982
American Auto Matrix, Inc.	\$ 8.0	1982
Iconnex Corporation	\$ 4.8	1986
Suprex Corporation	\$ 4.4	1982
Actronics, Inc.	\$ 4.0	1982
MegaScan	\$ 4.0	1987
New York Cooking School	\$ 3.0	1986
Biodecision Laboratories, Inc.	\$ 2.8	1986
Fagen's Inc.	\$ 2.5	1984
Extrel, Inc.	\$ 2.0	1986
Mindbank	\$ 2.0	1984
Expert Technologies, Inc.	\$ 1.6	1986
Ski View, Inc.	\$ 1.6	1985
Computer Renaissance	\$ 1.1	1986
Robin Woods, Inc.	\$ 1.0	1986
Meritwest	\$ 1.0	1988
GMD, Inc.	\$ 1.0	1986
TOTAL	\$167.6	

In addition, a number of firms have raised between \$500,000 and \$800,000:

Laboratory Data Systems, Inc.

Midec, Inc.

Pancon, Inc.4

Vortex Systems, Inc.

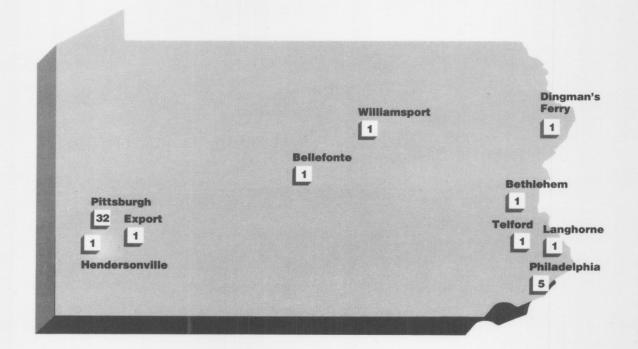
#### Notes:

- 1. Rough estimates of The Enterprise Corporation.
- 2. Listed in last year's Survey as American Cimflex Corp.
- 3. The Carnegie Group raised equity capital from five major corporations. It did not receive conventional venture capital.
- 4. Listed in last year's Survey as Ferrocement Systems, Inc.

### Location of

## Firms Receiving Venture Capital

This map shows the locations of forty-five companies in Pennsylvania that have received venture capital from venture capital firms with headquarters or regional offices in Pittsburgh. An additional six companies are at unknown locations in Pennsylvania.



Profiles of Pittsburgh Venture Capital and Leveraged Buyout Firms

## Company Profiles

### ALCOA/Advent Venture Capital Fund

- Founded 1986.
- A limited partnership fund managed for ALCOA by Advent International, of Boston.
- \$10 million under management for ALCOA by Advent. Additional funds available for direct investment or strategic partnering through ALCOA.
- Fund has made 14 investments, but to date none are in the Pittsburgh area.
- Focuses on areas of strategic interest to ALCOA, such as:
  - Advanced packaging products and systems.
  - Advanced aerospace structural subsystems.
  - Separation systems.
  - Ceramic parts.
  - Polymer and composite parts.
  - Other advanced materials.
- ALCOA mainly invests through ALCOA/Advent Fund. On occasion, ALCOA is willing to be lead or only investor.
- · Contact:

J. Lee O'Nan, Manager, Corporate Development Services Aluminum Company of America (412) 553-2627

#### APA/Fostin Pennsylvania Venture Capital Fund

- Founded in 1987.
- A limited/general partnership fund jointly managed by Alan Patricof Associates of New York, and Fostin Capital Corporation of Pittsburgh.
- \$40 million under management from two Pennsylvania state pension funds.
- Approximately one-half of the capital under management is expected to be invested in Pennsylvania companies.
- Will consider a broad range of industries and investment stages, including leveraged buyouts.
- Willing to act as lead investor.
- · Contacts:

Robert G. Faris and Ronald H. Hahn Alan Patricof Associates (212) 753-6300 (New York, NY)

William F. Woods and Thomas M. Levine Fostin Capital Corporation (412) 928-8900 (Pittsburgh, PA)

George M. Jenkins APA/Fostin Pennsylvania Venture Capital Fund (215) 687-3030 (Philadelphia, PA)

#### **C&L Ventures**

- Founded 1983.
- A limited partnership fund established with \$1.77 million of committed capital available for investment. Fully invested.
- C&L Ventures was set up as a venture capital pool with the intent of liquidating its portfolio of investments as quickly as possible, with a target date of five years.
- Three local investments: International Cybernetics Corp. (sold to Gould Inc.); Sentient Systems Technology, Inc.; Telephone Systems, Inc. (sold to Fibernet).
- Other than Sentient Systems Technology, all other investments have been liquidated.
- C&L is actively in the process of evaluating investment in several new ventures in 1989. The vehicle will probably be C&L Ventures II.
- · Contact:

Alfred I. Lipsitz (412) 341-1144

#### **CEO Venture Fund**

- Founded 1985.
- A limited partnership fund with \$10 million of capital.
- Investment range in each company: \$500,000 to \$1.5 million. Basic investment criteria:
  - Financing for a new company after its initial or start-up phase of funding or financing for modern technology for older companies.
  - Potential for substantial capital appreciation in five years.
  - Distinctive, proprietary products or services. Preferences: instruments, controls, software, advanced materials, factory automation, and biomedical.
  - Superior management teams which can benefit from the experience of the fund's several CEO investors.
- Local investments: Dravo Automation Sciences, Inc.; Extrel Corporation; Formative Technologies, Inc.; GMD Systems, Inc.; Iconnex Corporation; Midec, Inc.; Suprex; and Vortex Systems, Inc.
- Prefer to act as lead investor.
- · Contacts:

James Colker, Managing General Partner Gary P. Golding, Executive Fund Director (412) 687-3451

#### **Fostin Capital Corporation**

- Founded 1982.
- A privately held venture capital investment management company. Manages two separate capital pools, totalling \$21 million, and jointly manages another three funds, totalling \$91.5 million:
  - Manages about \$6.6 million of its own capital and that of Foster Industries and individuals.
  - Manages a private limited partnership, Fostin Capital Associates, which has \$14.4 million of committed capital.
  - Jointly manages three other funds:
    - APA/Fostin Pennsylvania Venture Capital Fund of \$40.4 million (see separate listing).
    - Loyalhanna Venture Fund with committed capital of \$36.1 million (see separate listing).
    - Trivest Commonwealth Fund with committed capital of \$15 million (see Loyalhanna Venture Fund listing).
- Prefers investments in medical, computer-related, electronics, and telecommunications companies.
- Local investments: Aluglas of Pennsylvania; Formative Technologies, Inc.; Iconnex Corporation; Medrad, Inc.; Pharmaceutical Group Services, Inc. (acquired in 1987 by RX USA, a division of Rite Aid Corporation); and Suprex Corporation.
- Willing to act as lead investor.
- · Contacts:

William F. Woods, President Thomas M. Levine, Executive Vice President (412) 928-8900

#### Hillman Ventures, Inc.

- Founded 1976. Headquarters office, originally in Pittsburgh, PA, relocated to Menlo Park, California in 1988.
- A corporate subsidiary of the Hillman Company, a privately held firm with sales in excess of \$1.5 billion.
- One of the largest venture capital firms in the United States. Invested over \$22 million in venture financings in 1988.
- Involved in all stages of financing. Prefers start-up financing.
- Some local investments: American Auto-Matrix, Inc.; Medrad, Inc.; and Suprex Corporation.
- Willing to act as lead investor.
- · Contacts:

Philip S. Paul, Chairman/CEO (415) 854-4653 (Menlo Park, CA) William J. O'Connor, Controller (412) 281-2620 (Pittsburgh, PA)

### Loyalhanna Venture Fund\*

- Founded 1984.
- · A limited partnership fund.
- \$51 million under management: \$36.1 million from Loyalhanna Venture Fund; \$15.1 million from Loyalhanna Commonwealth Fund.
- Can invest nationally, but special consideration will be given to regional investment opportunities in the tri-state region.
- General partners anticipate that the fund's capital will be fully invested over the next year.
- · Basic investment criteria:
  - Superior management skills and qualifications.
  - Sound business and financial plans.
  - High potential growth/market share.
  - Leading edge technologies/processes.
  - Other unique competencies.
- Fourteen local investments: Biodecision Laboratories, Inc.; Cimflex Teknowledge, Inc.; Ecogen Corporation; Expert Technologies, Inc.; Extrel Corp.; Fagen's Inc.; Formative Technologies, Inc.; New York Cooking Center, Inc.; Proanagen Corp.; Provac, Inc.; Secure Anchoring and Foundation Equipment, Inc.; Ski View, Inc.; Suprex Corporation; and Tartan Laboratories, Inc.
- · Contact:

James H. Knowles, Jr. (412) 928-8900

#### The Maverick Funds

- Founded 1985.
- A private limited partnership fund which includes Maverick Fund I and Maverick Pennsylvania Fund.
- \$25 million under management.
- · Basic investment criteria:
  - Specializes in investments in moderate sized businesses. Will not normally invest in start-up firms.
  - Superior management team.
  - Good cash flow.
- · Willing to be lead investor.
- · Contact:

Harold H. Hammer, Managing Director (412) 391-3000

<sup>\*</sup> Listed as Trivest Venture Fund in the 1988 A Survey of Venture Capital in Pittsburgh.

### Pittsburgh Seed Fund

- Founded 1985.
- A limited partnership fund with \$10 million under management.
- Investment focus is southwestern Pennsylvania. Typical investment: \$150,000 to \$500,000 per firm. Larger financings with co-investors possible.
- · Basic investment preferences:
  - Start-up firms seeking first round of outside professional investment.
  - Firms for which a seed investment can significantly reduce the uncertainty of success.
  - Firms with a strong management team.
  - Primarily technology-oriented companies, but service and other businesses will be considered.
- Local investments: Alpha & Omega ICS, Inc.; Computer Renaissance, Inc.; Expert
  Technologies, Inc.; Iconnex Corporation; Laboratory Data Systems, Inc.; Pancon, Inc.
  (formerly Ferrocement Systems, Inc.); Robin Woods, Inc.; Suprex Corporation; Vortex
  Systems, Inc.; and WorkWell, Inc.
- · Prefers to be lead investor.
- · Contacts:

Thomas N. Canfield, General Partner L. Frank Demmler, General Partner J. Stuart Lovejoy, General Partner John R. Thorne, General Partner (412) 687-5200

#### **PNC Venture Capital Group**

- Founded 1981.
- Manages three pools of capital totaling \$59.1 million, of which \$23.6 million has been invested:

An SBIC with \$5 million of equity capital. Approximately \$2.4 million has been invested.

\$12 million of PNC capital in a "5%" fund; limited to less than 5% of voting stock of a firm.

- Approximately \$8 million has been invested in other venture capital limited partnerships.
- Approximately \$9 million has been invested in firms.
- Approximately \$20 million of additional capital is made available by parent each year.

A separate limited partnership.

- \$2.5 million from PNC.
- \$5 million from PA State Employees Retirement System.
- Approximately \$4.6 million has been invested.
- Some local investments: Bellefonte Lime Company; Medrad, Inc.; Meritwest Inc.; Suprex Corporation; and Tartan Laboratories, Inc.
- Invests \$250,000 to \$2 million in venture capital; \$1.5 to \$5 million in mezzanine. Will consider
  early stage through later stage expansions, recapitalizations, and leveraged buyouts. Will not
  consider seed financing.
- Acts as a co-investor or lead.
- · Contacts:

Gary J. Zentner, President David McL. Hillman, Executive Vice President & General Manager (412) 762-8892

#### **Robinson Venture Partners**

- Founded 1982.
- A general partnership with all its investment funds and the general partnership from one family. Manages over \$3.5 million, all for direct investments in firms.
- Also advises on investments, primarily from local companies or families, on a deal-by-deal basis.
- Has made nine total investments to date, including several local firms, such as: Medrad, Inc. and Mindbank, Inc.
- Prefers industrial products firms; has invested in computer, computer software, retail, and health-related firms.
- · Not interested in oil, gas, coal, restaurants, or franchises.
- Invests at all stages.
- Generally acts as co-investor. Would be lead investor in an appropriate situation.
- · Contact:

Stephen G. Robinson (412) 661-1200

#### **Security Pacific Venture Capital Group**

- Founded 1960.
- Corporation headquartered in Costa Mesa, CA. Eastern office in Washington, PA, established in 1982.
- Consists of an SBIC and "5%" fund, both limited to a minority ownership position. Both pools
  can be used in a single transaction. \$300 million to \$350 million invested capital under
  management. Investments range in size from \$250,000 to \$10 million.
- Invests in ventures at all stages, in nearly any industry. Greatest portion of dollar sums invested go into buyouts of mature businesses.
- Key criteria: competence and experience in management team.
- · Willing to act as lead investor.
- · Contact:

Daniel A. Dye, Senior Vice President (412) 223-0707

#### **Wesmar Partners**

- Founded in 1986.
- General partnership fund between First Westinghouse Capital Corporation, an affiliate of Westinghouse Credit Corporation, and MR & Associates, the managing partners.
- \$40 million of committed capital.
- Focuses on management leveraged buyouts of companies in relatively mature industries with proven records of consistent earnings and cash flow. Typical buyout prices range from \$8 million to \$50 million. Has not made conventional venture capital investments.
- Not interested in start up firms, turn-around situations, or high-technology investments.
- · Contact:

Richard M. Maurer, Co-managing Partner (412) 392-2350