The Need for More Angel Investors in the Pittsburgh Region

Overview

- **Future economic growth in the Pittsburgh Region depends on increasing the rate of creation of startup firms that commercialize technologies coming out of the region's universities, medical center, and corporate R&D centers.**
- **An essential step in the growth of startup companies is finding seed-stage capital – more money than family & friends can provide, but less than most venture capital firms are currently willing to invest.**
- **Angel investors – high net-worth individuals making investments of $25,000 to $250,000 in startup companies – play a critical role in providing seed-stage capital.**
- **Pittsburgh has far fewer angels than it needs to support greater entrepreneurial growth, and has fewer angels than many other regions.**
- **The easiest way to become an angel investor is to join an angel network, like BlueTree Allied Angels, or to invest in an Angel Fund, such as the fund currently being developed by Innovation Works.**
- **Although angel investing is risky, if done with proper due diligence and assistance, investors can make significant returns on their money – better than later-stage venture capital and other equity investments.**
- **An individual who is an accredited investor can become an angel investor with investments of as little as $25,000 in individual companies; a commitment of approximately $250,000 allows the investor to diversify across multiple companies.**

The Opportunity for Entrepreneurial Growth in the Pittsburgh Region

How can the Pittsburgh Region create more jobs? Economic development research suggests that two factors are essential: Innovation (creating new ideas), and entrepreneurship (turning ideas into new companies). Without entrepreneurship, innovation won't create many jobs. Without innovation, entrepreneurs can't build major businesses.

The Pittsburgh Region may well have greater strength in innovation today than at any time in history:

- It has more university research & development than 32 of the 50 states and more than all but a dozen other regions. Research spending at Pitt, UPMC, and Carnegie Mellon has grown faster than the national average, and now totals $900 million per year.
- It has more corporate R&D than most states, with over 150 corporate R&D facilities, including major R&D Centers for Alcoa, Bayer, Crucible, Heinz, Kennametal, Mine Safety Appliances, PPG, Seagate, U.S. Steel, and many others.

But that innovation won't translate into rapid job growth without **entrepreneurship**. Unfortunately, compared to the other 40 largest regions in the country, the Pittsburgh Region has the lowest ranking on measures of new business creation, and it ranked 50th out of 50 in Entrepreneur Magazine's 2005 list of Hot Cities for Entrepreneurs.

If the Pittsburgh Region can provide the environment and resources needed to foster more startup companies, it can translate its tremendous innovation assets into new jobs and higher economic growth.

The Critical Need for More Seed-Stage Capital

An essential step in the growth of a startup technology firm is finding **seed-stage capital** – investments that enable the company to refine its business plan, create and test its product, build its management team, and prepare for sales to initial customers. These investments can range from $100,000 to $2,000,000 per company, depending on the type of business.

Although in the 1990s, a number of venture capital funds across the country made seed and early-stage investments in startup companies, very few do today. As venture funds have grown larger, it has become impractical for them to make many small investments, and so they seek larger investments in fewer companies. As a result, however, a company that ultimately needs venture capital may never reach the point where it can qualify unless it can find seed-stage funding from another source.

Innovation Works has estimated that out of the estimated 150-200 new technology companies formed in the Pittsburgh Region each year, about 12-18 will ultimately have an enterprise value of $20 million or more, and about 6 will reach a size of $50-$100 million or more. Of these, almost all will need significant seed-stage funding, and the smaller firms may never need larger venture capital investment. Consequently, without an adequate supply of seed-stage investment, the majority of potentially successful firms may die for lack of capital. If the region is successful in increasing the rate of formation of new companies, the need for seed-stage funding will also grow dramatically.

Local economic development agencies have attempted to fill the seed-stage capital gap, particularly Innovation Works, which has invested $28 million in 82 technology startup firms over the past 7 years. But the public funding for seed capital is limited, and the more an organization like Innovation Works invests in any one company, the fewer companies it can help, particularly at even earlier (pre-seed) stages.

The Role of Angel Investors

What’s the answer to the seed-stage capital gap? **Angel investors** – high net-worth individuals making investments of $25,000 to $250,000 in startup companies.

Some angel investors have the money, time, and expertise to make well-informed seed-stage investments on their own, but most do not. That’s why many angels choose to join an **angel network** – an organized group of angels, perhaps with a professional staff, that helps perform due diligence on startup firms and carries out the necessary legal and financial steps to close and monitor investments. Members of an angel network don’t invest in every company that the network invests in – they can pick and choose which subset of deals they will invest in. Having an angel network is also good for entrepreneurs, because it makes it much easier for them to find angels, rather than trying to locate them one by one through networking.

There is also a growing trend toward creating **angel funds** – these funds enable individuals who don’t have the time or interest to actively participate in an angel network to make an upfront investment, which is pooled with the investments of other high-net worth individuals and invested in a diversified portfolio of early-stage companies. These pooled funds can either be managed by a professional fund manager, or can be structured as a “sidecar” fund that invests along with an active angel network. Either way, these funds expand the amount of seed-stage capital available to promising companies, thereby creating the equivalent of a larger network of angels.

Angel investors have been a critical part of the Pittsburgh Region’s economic development for over a century. Alcoa, for example, is here in Pittsburgh because 118 years ago, Pittsburgh had angel investors willing to invest in an entrepreneur with a new technology, and Ohio didn't. When Charles Martin Hall invented an inexpensive method of smelting aluminum, he came to Pittsburgh from his home in Oberlin, Ohio because he was unable to find investors in his home state. Alfred E. Hunt and a small group of investors provided the $20,000 in seed capital that gave Alcoa its start.

The Need for More Angel Investors in the Pittsburgh Region

The Pittsburgh Region is fortunate to have one professionally-managed angel network – Blue Tree Allied Angels. Blue Tree has 43 current angel members, and has invested $3.8 million in 10 companies to date.

However, the most successful angel networks around the country have at least 80-100 members, and several regions of the country have two or more angel networks. Moreover, there is no active angel fund in Pittsburgh. Although Innovation Works is currently working to develop one, its success will depend on the ability to recruit individuals to invest in the fund.

The relatively small number of active angels and the lack of an angel fund in the Pittsburgh Region creates several problems:

- Fewer angels means that each angel has to make larger investments in each company in order to meet its capital needs. That increases the angels' level of risk, reduces their ability to fund more companies, and reduces their ability to invest in companies needing large amounts of seed capital.
- Because it typically takes 5-10 years to receive a return on an angel investment, once angels become fully invested, the network's ability to invest in new companies decreases, unless new angels join.
- The ability to evaluate deals depends heavily on having angels or fund managers with expertise in the technologies and industries being pursued by startups. Fewer angels means some companies may be rejected simply due to lack of understanding or comfort with the technology and its potential market.

Currently, there are many signs of an acceleration in technology-based entrepreneurship in the Pittsburgh Region. Fourteen new companies were started in the past year using technologies developed at Carnegie Mellon, the largest number ever. The University of Pittsburgh ranked sixth in the nation in the number of start-up companies created in 2004. However, **without a sufficient pool of angel investment for these startup companies, they may fail or move to other regions.**

Once angel investing reaches "critical mass," it can become self-sustaining, since the founders of angel-funded companies can themselves become angel investors. But the Pittsburgh Region needs to "prime the pump" to create enough successful startups to reach that point.

How Much Money Does an Angel Need, and How Much Can They Make?

Although someone could become an angel investor in a individual company with as little as $25,000, they will need to be able to make multiple investments in order to find the one or two successful companies that will offset losses from the unsuccessful ones. A typical angel investor might expect to invest $150,000 to $250,000 over a period of several years. (The individual will also need to have sufficient net worth to meet SEC requirements as an accredited investor, and the amount they commit to angel investing should represent 5% or less of their investable assets in order to insure good portfolio diversification.)

How much can they make? Data from the National Venture Capital Association show that seed- and early-stage investments can have the best return potential of any private equity investment. The most recent report says early/seed capital funds had a 41.4% 10 year internal rate of return, compared to 10.7% for later stage venture capital, 8.9% for buyouts, and 7.2% for the S&P 500.

Here's an example, based on conservative rates of failure and return for startups. Suppose an individual commits $250,000 to angel investing:

- Over a three-year period, they invest those funds in eight different startup companies, with individual investments ranging from $20,000 to $60,000.
- Over the next seven years, three of the companies fail completely (the angels lose their investment), four break even or have modest success (angels get back 1-4 times their investments), and one is a "home run" that returns 10 times the original angel investments.

Over the ten year period, the angel investor gets a return of $840,000, or $590,000 net of the original investment, the equivalent of 16% interest compounded annually. And in the process, the investor helps to create five new companies, at least one of which is likely to spark significant job growth in the region.