The Michigan Initiative for Innovation & Entrepreneurship

A consortium of public universities for transforming practice and culture

Overview

Many leaders and institutions across the state of Michigan have dedicated themselves to the renewal and revitalization of the state's economy. Most agree that creating knowledge jobs and recruiting and retaining knowledge workers are vital strategies for reinventing the regional economy. Other regions (such as the West Coast and the Northeast) have shown that creating sustainable knowledge-based economies depends on leveraging the enormous intellectual capital that exists in local, world-class universities and colleges. A remarkably strong and competitive higher education infrastructure exists in Michigan. Our fifteen public colleges and universities collectively draw more than $1.5 billion in R&D funding each year into the state, creating a large and constantly renewable resource of creativity, innovation, human and physical infrastructure, and business acumen that stands ready to be leveraged to our state's advantage. Each of these great institutions brings thousands of students, strong faculty and staff, a diversity of strengths, and community-based relationships that can be leveraged in service to a new economy.

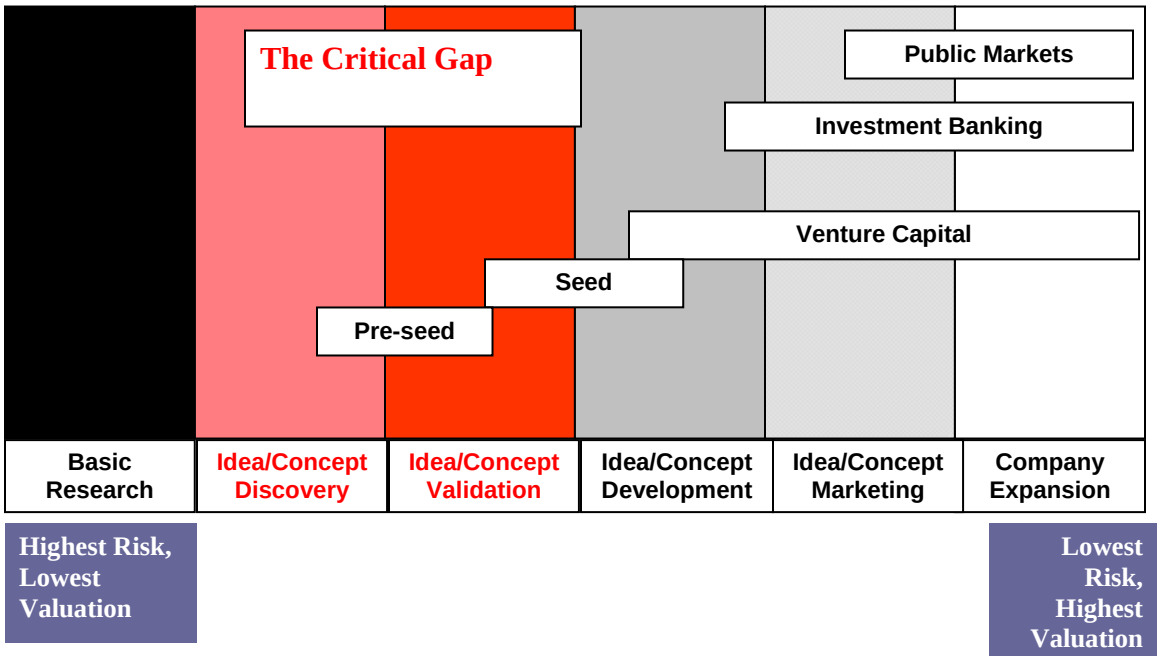
The public universities have united to form a common approach to economic development and entrepreneurial initiatives. In the past year, the universities have formed a consortium for recruiting and funding entrepreneurial efforts, enabling new business start-ups, and promoting innovation and competitiveness in existing businesses.

This consortium – the *Michigan Initiative for Innovation and Entrepreneurship(MIIE)* – will work through the coming seven years to: **Develop effective and long lasting partnerships** between academia, industry, venture capitalists, and government to leverage existing infrastructure, resources and expertise; **generate risk capital** whose purpose is directed exclusively to founding new ventures within the State of Michigan; **make education and investment** in entrepreneurship a priority on campuses and off; **develop a sustainable entrepreneurial environment** in the state's universities and at the policy and investment levels; and **create a culture of innovation** in the universities and across Michigan. MIIE's members have created a fair, transparent and merit-driven process for recruiting proposals from among the consortium and for making decisions about MIIE grants.

The ultimate objective of the initiative is to create *sustainable and effective means to rebuild our communities*, achieving economic prosperity based on a diverse and distributed foundation of knowledge-based industries. To accomplish this transformation of the economic competitiveness of the rust-belt, the MIIE seeks a significant grant. Such a grant will be allocated through three funds that offer a comprehensive approach to launching new businesses and creating the much-needed culture of entrepreneurialism among students, faculty, and industry (as it intersects with them). In total, the universities are committed to raising $75 million for this statewide, seven-year collaboration to invest those funds in collaborative, transparent and competitive ways. The programs are organized into three thematic approaches to changing practice and culture, and investing in a new entrepreneurial culture within the campuses and their communities.

Fact Sheet: The Gap Fund

The **Gap Fund** will provide substantial resources to move innovative ideas from the laboratories, studios, and classrooms in our state institutions of higher learning and research into a phase that can attract substantial and sustaining venture investment for new businesses to be established *in Michigan*. The existence of the "critical gap" in existing funding mechanisms in Michigan is shown below.



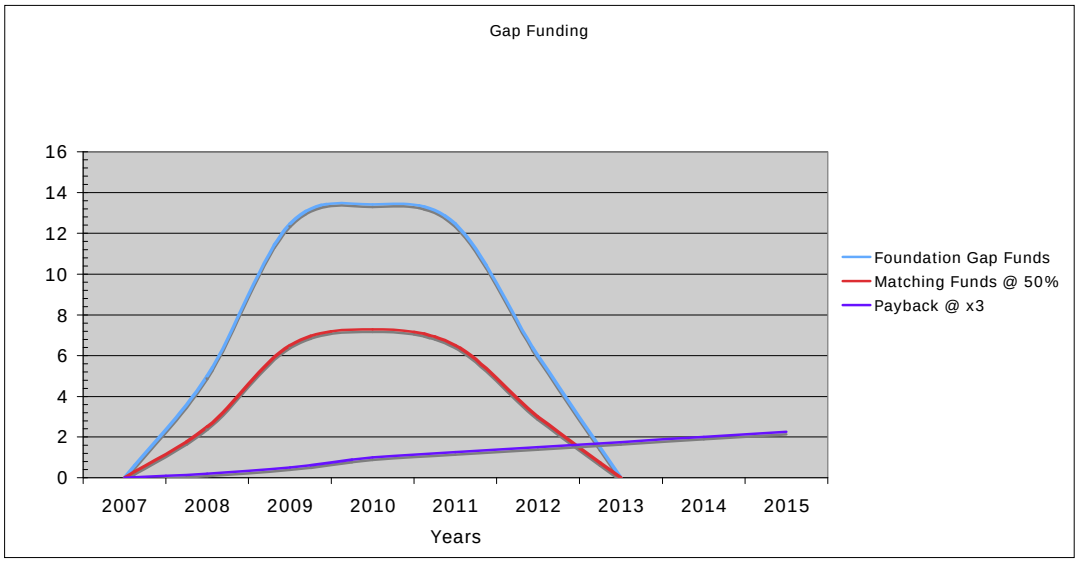
- The **Gap Fund within MIIE** will focus on ***connecting translational research to pre-seed and seed stages of development and investment***. It is aimed at nurturing invention and ideas through to being venture-ready. Its use of philanthropic dollars leaves start-ups with the flexibility necessary to attract later-stage venture funding. The funds are driven by the universities' business development operations, emanating from research and technology transfer.
- **$50 million will be raised and reinvested in collaborative and competitive processes** (see a first set of RFPs, attached).
- **Requests for proposals (RFPs) and processes for making funding decisions** are based on experiences and models of the MEDC-funded Michigan Universities Commercialization Initiative (MUCI), which engaged ten of the universities. MUCI has collaboratively allocated more than $6 million to date, under four MEDC funding cycles, to more than 110 projects. An evaluation report on the first three cycles of funding is available.
- Project examples from MUCI efforts include the following:
    - **BioPhotonic Solutions Inc**, out of MSU, received $53,000 to develop a prototype, and then received $38,000 for commercialization of a second technology
    - **Xoran Technologies**, out of UM, has received MUCI funds and has been named one of "Fifty Companies to Watch in Michigan"

- **SenSound** (Wayne State) later received $100,000 Small Business Innovation Research grant from U S Air Force
- **Quartz crystal microbalance** (QCM) sensor technology is leading to a device that can detect whether water is drinkable; this work at Oakland University received $47,800 from MUCI to engineer a prototype and do market assessment.

- **Funds are targeted to support the successful migration of a university-owned technology out of the institution** towards licensing and economic development. Supported activities can include market research and commercial assessment to confirm market need and customer/partner/investor interest, product requirements, plan for competitive advantage (the "value proposition,"), proof of concept studies; IP enhancement, initial "freedom to practice" analysis, regulatory approval planning (patent application), prototype development and testing, feasibility studies for production scale-up, business model development, business plan preparation, portfolio profiling (analysis of a group of related technologies), and consulting.

The first round of applications to the MIIE program to be funded using a planning grant from the C. S. Mott Foundation includes a wide range of proposals from all of the 15 public universities. Given the successes and activities of MUCI, through which $6 million in investment has seen 27 new businesses launch, **we expect that $50 million invested through this Gap capital, in start-ups and commercialization through MIIE, will result in as many as 200 new businesses in Michigan**.

Additionally, the Gap Fund has match requirements of the institutions and has, like all licensing from within the universities, a payback provision. This provision is not based on an equity stake, which would harm the start-up as it seeks venture capital at a later stage, but is based on repayment of three times the award amount as a small percentage of start-up revenue in early years. The chart below offers a sense of the long-term payback revenue stream, as well as the matching funds drawn into the start-ups through the MIIE Gap Fund program.



Fact Sheet: Industry and Economic Engagement

A second focus of MIIE is on **Industry and Economic Engagement** to establish a context for researchers, practitioners and the business community to exchange ideas, and to improve and start businesses in the state. Fifteen million dollars will be raised and regranted in higher education collaborations emanating from research operations and regional opportunities.

The purpose of the fund is to help transfer *knowledge* from universities to Michigan industry, thereby expanding the economic base of Michigan. Awards will foster collaborations between universities and Michigan-based enterprises by developing projects or programs that are based on university knowledge, expertise, specialized facilities, know-how, etc. Characteristics of appropriate projects include: Access to resources, assets, and services within the university, such as faculty expertise and technical facilities by private companies. Projects may also improve access by university personnel to private company resources, assets, and services. Examples include faculty/student teams working with companies, especially entrepreneurial ventures; university faculty and student teams working to improve the competitiveness of Michigan industry; providing common forums for university and industry experts to share information, etc.

While university intellectual property may not be involved at the time of the initiation of the project, university IP or joint IP may develop from the project. Projects may also meet a particular need or a larger, sustainable program or project that will have impact over time.

Proposals from the participating universities to this fund in June 2008 include creative approaches such as:

- IME: A Partnership Between Tellurex, Corp. and MTU to Engineer Materials for High Efficiency Thermoelectric Power Generators
- Metropolitan Gateway Feasibility Study
- West Michigan Medical Device Industry- Creating Proprietary Position for Profitable Business Growth
- Anti-microbial Coatings for Interior Architectural Aluminum Panels
- Instant Innovation
- Small Business Clinic
- Entrepreneurship Academic Program
- Imaging the Future: Revitalization of Mid-Michigan Companies Through Deep Strategic Change.

Fact Sheet: Talent Retention and Entrepreneurship Education Fund

A **Talent Retention and Entrepreneurship Education Fund** is directed at improving the level of understanding within the state's educational institutions about how to achieve commercial success from concept to practice. The universities propose to raise $10 million for regranting in this category.

Awards from this fund will foster entrepreneurial education faculty development through the provision of resources and programs. The intent of this fund is to advance knowledge of entrepreneurial principles and practices among multiple student and faculty constituencies, and to solidify a culture of technological innovation and entrepreneurship in Michigan.

Examples include entrepreneur-in-residence programs, projects designed to increase the effectiveness of university tech transfer offices, internships with economic development agencies, venture capital and other fund managers, development of new courses/curricula and boot camps, etc.

First round proposals to this fund (June 2008) include the following:

- Techno-Entrepreneurs Simulation
- Haworth College of Business Center for Entrepreneurial Studies and Innovation
- Development and Turnaround of Michigan CleanTech Companies
- Entrepreneurship Education in Flint.

Each set of activities will be enhanced by the local and regional matches that the participating research institutions provide, and will also draw significantly from other private and public resources.

Requests for Proposals for all three funds were issued to the universities in May 2008, with a copy of the invitation attached. Response has been strong – at deadline there were 39 proposals. The processes designed by the universities – and the RFP itself – have achieved significant buy-in among the universities of the state. The collaborative review committees, including university representatives, economic developers, venture bankers, and entrepreneurs will meet in late June to decide grant allocations, and final decisions will be made in early July, 2008.