Innovation Enterprises 2014 Strategic Plan

Office of Innovation Enterprises

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INNOVATION ENTERPRISES

THE UNIVERSITY OF TOLEDO

Strategic Plan

2014

Where Research and Innovation Mean Business
“An institution’s culture is not an inert thing, though admittedly difficult to change. It belongs to the people of the institution; an institution’s culture is constituted of the sum total of the utterances and writings of the people who comprise the institution. We are responsible for it. We create it with our utterances. We change it with our physiognomy, demeanor, and speech.”

- Directions, 2011

**Preamble:**

Innovation, which rarely occurs in isolation, is the creative energy of our lives applied in ways that provide meaningful improvements to the human condition. Thus, the many and varied participants in UT’s innovation efforts are committed to creating the conditions for innovation to thrive - ultimately transforming The University of Toledo into the first place talented and creative students, faculty, staff and entrepreneurs seek when choosing their path to success.

Innovation Enterprises, along with the Office of Research and Innovation and partners throughout The University and the region, are working to enhance transformative idea generation, to connect entrepreneurs and their ideas with the right people and other development resources for their commercial success, and ultimately to help achieve the rejuvenation of our community and region. By engaging our University in thinking and acting inventively, our University community will collectively reshape its culture and achieve the full relevance and economic impact envisioned in our Strategic Directions.

From these early years, we learned that there is no substitute for proper leadership and defined strategy aligned with the principles of our academic mission, while advancing innovative and creative ideas in our university and Region. We also learned that since we are conducting early stage investing, we must balance the risk in additional ways, such as managing the risks by multiple tranches, with carefully defined milestones, and by highly disciplined adherence to milestone achievement before releasing additional tranches.

We have learned how to appropriately cultivate the best clients for the needs of our Fund, and how to connect these clients with passionate UT research faculty and graduate students to conduct the necessary primary market research and entrepreneurial activity. We have learned to ensure success of these clients there must be hands on management and that a mentor must be assigned to each company - teaching them the best practices it has taken our team many years to vet and implement.
Moving Forward...

Our guiding principles emphasize providing value for the university and its stakeholders, working within the four domains, specifically in the area innovation ecosystems, and increasing innovation and entrepreneurial opportunities for students, faculty and regional business and industry, primarily in start-ups with new or disruptive technologies - Always considering and measuring how our projects positively affect the student and faculty experience, revenue for sustainability, reputation, and research and subject matter expertise.

There have been many strategic and tactical goals throughout the evolution of Innovation Enterprises with particular focus on its best practices, its portfolio and investments, and the engagement with the University and region. These strategies have led us through transformative times, bringing us to our current state: a professional seed fund with the capabilities of bringing entrepreneurs in the region through the ‘valley of death’ to a place of success; providing unique experiential learning for our students along the way. This work has earned distinction on local, regional, state and national levels and has been recognized not only by our local partners (evidenced by their eagerness to align programs and resources) but also on a federal level, evidenced by recent federal funding awards and the designation of UT and Innovation Enterprises as an NSF ICorps Site.

As we journey into 2014, the focus of our strategic plan has narrowed into 3 main areas: sustainability, supporting the transformation of the educational experience, and providing distinct value wherever we serve. We will achieve these goals using the valuable lessons from our past and implementing proven best practices for the future. On the forefront is the creation of the NSF ICorps Site and the adoption of the Lean Launch Methodology (see Glossary on page 10 for Lean Launch Methodology).

In addition, we will continue to work with University and regional leaders to capitalize on the points of opportunity for both academics and businesses to grow. Importantly, we must continue robust efforts to improve our Region by facilitating UT’s role as a recognized and effective leader in regional economic development.
**Mission:**

The Mission of The University of Toledo’s Innovation Enterprises is to identify, facilitate, stimulate and support successful commercial activity that is aligned with the University’s vision and mission and the Region’s Interests.

**Vision:**

Innovation Enterprises’ vision is to help create a culture of entrepreneurship and innovation among students, faculty, staff and alumni and the region; acting as a portal - facilitating resource exchange between the University and commercial enterprises, organizations and other institutions on a regional, national and global scale.

**Our strategic goals are regulated by our guiding principles that continually move us forward:**

- Provide value to the University in our efforts, in alignment with the student and faculty experience; revenue/sustainability; reputation; research and subject matter expertise.

- Being a transparent portal between the University and the region, facilitating resource exchange that promotes partnership and growth.

- Utilizing our assets to enhance the four domains - human capital, health care and wellness, quality of place and the innovation system - to create prosperity in the region.

**Core Assets:**

- Academic Resources
- Facilities
- Tech Transfer, Commercial Research, and Commercialization
- Funding
- Institutional Level Business Engagement

**Our Accomplishments:**

- Provided startup funding and investments valued at over $11 Million
- Provided business development and startup expertise to over 100 existing enterprises
- Helped manage over $50 Million of economic investments, which have been committed to large scale projects in Northwest Ohio
To ensure alignment with The University of Toledo, the creation and implementation of Innovation Enterprises’ strategies are driven by Directions 2011, with particular focus on goals 2, 3 and 6 and the sub-goals directly guiding our efforts:

- **Goal 2: Graduate and Professional Academic Programs:**
  - 2.4 We will establish a recognized role in economic leadership and stimulation of the regional economy.

- **Goal 3: Research, Technology Transfer and Incubation:**
  - 3.2 We will bring UT to the top 150 in the NSF rankings of research expenditures.
  - 3.3: We will build collaborations with federal research and development (R&D) agencies.
  - 3.4: We will build and develop research connections and collaborations with leading universities and centers and private corporations.
  - 3.6: We will provide nationally recognized technology transfer and technology and incubation programs that assist in local business development.
  - 3.7: We will provide quality infrastructure and support for faculty research and scholarship.

- **Goal 6: Outreach and Global Engagement**
  - 6.5: We will be an economic catalyst for the region.
  - 6.6: We will improve the region’s quality of place and increase community access to UT.
  - 6.8: We will encourage global engagement.

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**INNOVATION ENTERPRISES**

**THE UNIVERSITY OF TOLEDO**

“Where Research and Innovation Mean Business”
Innovation Enterprises Strategic Goals

   a. **Invest in technologies creating a balance between early stage and closer to market companies.**
      - Metric: creation of a balanced portfolio
   
   b. **Create process improvements to better investigate all areas of the company/technology**
      - Metric: Improved due diligence actives to include Lean Launch and Business Model activities
   
   c. **Identify and secure additional funding ($2.5 – $5 million) to create sustainability for the Innovation Enterprises Fund and related activities. Potential avenues to raise funds:**
      - Metric: Raised funds utilizing the following resources:
        o Crowd funding
        o Seeking grants
        o Private fundraising
        o Outside investment in UTIE
        o Seeking more funds from UT Board
        o Philanthropy (working with UT Foundation)
   
   d. **Identify and implement a system of best practices for tracking and assessment of portfolio companies. This can include:**
      - Metric: Implementation of system to better understanding of company activities, enabling effective management of enterprise activities. The system may include:
        o Market analysis
        o TRL/BRL
        o Management structure
        o ERL/100 point survey
        o Exit strategy
        o Appoint management inside of company
   
   e. **Optimize available lab and Incubation facilities and associated programming to increase activities and revenues that sustain the program.**
− Metric: Incubation space 80% leased, monthly programs providing education to our client companies, increased external support

f. Review current Board Governance practices to maximize Board of Director activities in order to provide skills and expertise supporting the startups we serve.
− Metric: reorganized board structure and board activity

2. Actively support the advancement of an entrepreneurial culture within The University of Toledo - branding it as an innovative and entrepreneurial force in the region and state.

a. Provide innovation programming that will advance a transformational innovation and entrepreneurial culture throughout The University and the region.
− Metric: Implemented entrepreneurial curriculum aligned with the ICorps Lean Launch Program; 100 students participating

b. Effectively demonstrate the many facets within the Lab to Launch process and actively communicate the opportunities to engage students, faculty, and staff
− Metric: Effectively demonstrate the many facets within the Lab to Launch process and actively communicate the opportunities to engage students (100), faculty (10), and staff (10).

c. Connect students and faculty with meaningful and transformational work integrated learning opportunities.
− Metric: 75 interns working within our innovation ecosystem and 5 faculty mentors involved.

3. Create value in the various enterprises we serve
a. Support UT in Becoming and being recognized as a hub of innovation in the Region
− Metric: measure best practices against national models; increased press releases and publication at local state and national level (1 press release per month, mention/focus in 3 publications per year); win various innovation awards (participate in 2 award programs year); increased grant awards directly related to this activity (2 per year).
   ○ Tactic: Provide physical and programmatic Incubation/acceleration
   ○ Tactic: Collaborate/integrate with other entrepreneurial activities in the region
b. Create and maintain a network of entrepreneurs and business professionals to act as mentors when appropriate. Utilize the following groups for potential mentors:
   - Metric: Mentor network created - 25 new mentors
     - Tactic: utilize the following organizations for potential mentors:
       Alumni, SCORE, Ohio Business Roundtable, The Employers Association, Toledo Regional Chamber of Commerce, EPIC, YPO.

c. Address issues with respect to client funding by understanding the current funding environment so when gaps are identified in the lab to launch continuum, we can create/attract necessary resources.
   - Metric: develop relationships with 2 private equity and 2 VC firms that will result in funding for at least 3 of our enterprises.

d. Provide business development services to the Startup Enterprises to increase the value of the enterprise, improve the technology, and/or support the development of the enterprise infrastructure.
   - Metric: engage EIRs/Mentors to provide consultation for the purpose of increasing enterprise values by 50% for 3 enterprises.
“We must embrace innovation; it is the only hope for a sustainable future.”
- Dr. Lloyd Jacobs, ‘A University Rising’

**Epilogue:**

Innovation Enterprises has been challenged to join with others throughout the University to co-create a culture of innovation and entrepreneurship in the vibrant and essential life of the University - in effect transforming it beneficially, in every place and every way. This strategic plan is a response to that challenge by our Board of Directors, staff, and broad network of collaborators in the University and its regional community.

Thus, the evolving mission of Innovation Enterprises is about more than just commercializing technology. It is collaboratively enriching the University’s value as an innovative and transformative educational, research and economic force for the benefit of its students, faculty, and the region. Together with the Office of Research and Innovation and its affiliated organizations, this strategic plan re-focuses its resources on goals and strategies to achieve both commercial and cultural development objectives in ways that are measurable in both traditional business metrics as well as more subtle, but highly meaningful ways of measuring a life well-lived.

We must go beyond “thinking outside the box,” and embrace the opportunities developed by creative members of our University and community in order to refine the talents of our students to be more highly contributing members of an increasingly interesting and complex world, while at the same time generating a healthier regional economy. We have created this plan to be correspondingly flexible and open to change. The goals, their tactics for execution, and the outcome metrics, are designed to be malleable –while providing a direction that keeps us focused.

Drawing on the lessons learned from our early experiences, and informed freshly by our campus and regional collaborators, we will continue to work together to build a more innovative and sustainable future for The University and the Northwest Ohio region.
**Board of Directors**

These distinguished business and community leaders provide insight and guidance on UT Innovation Enterprises' Board:

<table>
<thead>
<tr>
<th>NAME</th>
<th>BUSINESS ADDRESS/PHONE/FAX/EMAIL</th>
<th>DATE APPOINTED/(TERM EXPIRES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Thomas Brady</td>
<td>Chairman &amp; CEO, Plastic Technologies</td>
<td>2010 - 2016</td>
</tr>
<tr>
<td>2 William Carroll</td>
<td>Partner, Highland Jebco</td>
<td>2013 – 2019</td>
</tr>
<tr>
<td>3 C. William Fall <em>(Vice Chair)</em></td>
<td>President, The William Fall Group</td>
<td>2012 - 2018</td>
</tr>
<tr>
<td>4 Roosevelt Gant</td>
<td>President, R. Gant, LLC</td>
<td>2008 - 2014</td>
</tr>
<tr>
<td>5 Thomas Gutteridge</td>
<td>Dean, Social Justice &amp; Human Service - UT</td>
<td>2012 - 2018</td>
</tr>
<tr>
<td>6 David Huey</td>
<td>(Block Communications--Retired)</td>
<td>2008 - 2014</td>
</tr>
<tr>
<td>7 Jeannie Hylant <em>(Secretary)</em></td>
<td>Vice President, Hylant Group</td>
<td>2008 - 2014</td>
</tr>
<tr>
<td>8 Lloyd Jacobs</td>
<td>President, UT</td>
<td>Ex-Officio (voting)</td>
</tr>
<tr>
<td>9 William Koester</td>
<td>Electrical Engineer</td>
<td>Ex-Officio (voting) 2010 - 2016</td>
</tr>
<tr>
<td>10 Peter Machin</td>
<td>G B Manufacturing Company (Owner)</td>
<td>2011 - 2017</td>
</tr>
<tr>
<td>11 William McCrery <em>(Treasurer)</em></td>
<td>CFO/Treasurer UT Innovation Enterprises</td>
<td>2009 - 2015</td>
</tr>
<tr>
<td>12 Scott Scarborough</td>
<td>Provost, Executive VP Academic Affairs, UT</td>
<td>Ex-Officio (voting)</td>
</tr>
<tr>
<td>13 Sharon Speyer</td>
<td>NW Ohio Regional President - Huntington Bank</td>
<td>2011 - 2017</td>
</tr>
<tr>
<td>15 Jim Trempe</td>
<td>Vice President, Research, UT</td>
<td>2012 - 2018</td>
</tr>
<tr>
<td>16 Rick Yocum</td>
<td>Yocum Consulting Associates</td>
<td>2010 - 2016</td>
</tr>
<tr>
<td>17 Joseph Zerbey</td>
<td>President/CEO - The Toledo Blade</td>
<td>Ex-Officio (voting)</td>
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Glossary*:

Technology Transfer is the process of transferring scientific findings from one organization to another for the purpose of further development and commercialization.

An invention is a new configuration, composition of matter, device or process. Some inventions are based on pre-existing models or ideas, and others are radical breakthroughs, which extend the boundaries of human knowledge or experience.

Incubator is a facility designed to foster entrepreneurship and help startup companies to grow through the use of shared resources, management expertise, and intellectual capital.

Incubation is the process of cultivating successful business development.

Seed Stage Company is a new or existing company that is in the idea or conceptual phase.

Early Stage Company is a company that is less than 10-years old and has less than 50 employees.

Innovation is the process by which an invention is translated into a good or service.

IE Business Plan Competition is sponsored by Innovation Enterprises, with substantial help from the College of Business and Innovation, this is the annual opportunity for faculty, students, staff and alumni to obtain help with brief business plan and competing to obtain additional resources to further develop the business plan in preparation for active development.

Lean Launch Summary - (authored by Steve Blank)

The lean method has three key principles:

First, rather than engaging in months of planning and research, entrepreneurs accept that all they have on day one is a series of untested hypotheses—basically, good guesses. So instead of writing an intricate business plan, founders summarize their hypotheses in a framework called the business model canvas. Essentially, this is a diagram of how a company creates value for itself and its customers.

Second, lean start-ups use a “get out of the building” approach called customer development to test their hypotheses. They go out and ask potential users, purchasers, and partners for feedback on all elements of the business model, including product features, pricing, distribution channels, and affordable customer acquisition strategies. The emphasis is on nimbleness and speed: New ventures rapidly assemble minimum viable products and immediately elicit customer feedback. Then, using customers’ input to revise their assumptions, they start the cycle over again, testing redesigned offerings and making further small adjustments (iterations) or more substantive ones (pivots) to ideas that aren’t working.
Listen to Customers

During customer development, a start-up searches for a business model that works. If customer feedback reveals that its business hypotheses are wrong, it either revises them or “pivots” to new hypotheses. Once a model is proven, the start-up starts executing, building a formal organization. Each stage of customer development is iterative: A start-up will probably fail several times before finding the right approach.

1. Founders translate company ideas into business model hypotheses, test assumptions about customers’ needs, and then create a “minimum viable product” to try out their proposed solution on customers.

2. Start-up continues to test all other hypotheses and tries to validate customers’ interest through early orders or product usage. If there’s no interest, the start-up can “pivot” by changing one or more hypotheses.

3. The product is refined enough to sell. Using its proven hypotheses, the start-up builds demand by rapidly ramping up marketing and sales spending, and scales up the business.

4. Business transitions from start-up mode, with a customer development team searching for answers, to functional departments executing its model.

The founders of lean start-ups don’t begin with a business plan; they begin with the search for a business model. Only after quick rounds of experimentation and feedback reveal a model that works do lean founders focus on execution.

Third, lean start-ups practice something called agile development, which originated in the software industry. Agile development works hand-in-hand with customer development. Unlike typical yearlong product development cycles that presuppose knowledge of customers’ problems and product needs, agile development eliminates wasted time and resources by developing the product iteratively and incrementally. It’s the process by which start-ups create the minimum viable products they test. (See the exhibit “Quick, Responsive Development.”)