A Proposal to Support Technology Commercialization at Tulane University

Overview

Positioned well for the 21st century challenges society continues to face, Tulane University School of Science and Engineering is on the forefront of combining all of the sciences and engineering disciplines in one home. The School of Science and Engineering works to create an environment in which our students and faculty can engage in learning, discovery, collaboration and innovation. We place our emphasis on four themes and the intersection of those themes: undergraduate education, research and graduate education, K-12 science, technology, engineering and mathematics (STEM) education, and technology commercialization. With your support, we can form the lasting infrastructure, programming and people necessary to support Tulane’s culture of innovation. Now is the time to increase the intensity and impact of Tulane’s role in technology commercialization.

The Vision

In today’s competitive global economy, breakthrough scientific discoveries are fueling engineering innovation at an accelerating pace. At Tulane School of Science and Engineering, our culture allows science and engineering challenges to inspire mutual discovery and create a new world of knowledge. This environment is the perfect breeding ground for innovation. We have the ability to use our knowledge to take on the world’s greatest challenges, but to do that we have to take our innovations out of the labs and into the daily lives of people around the world. We have the opportunity to deliver better solutions to the world around us and in the process create better-educated students, more knowledgeable faculty and grow a sustainable economy.

*Proposed design for the new Maker Space*
The School of Science and Engineering is defined by its mission to provide education and research with a focus on interdisciplinary activity, entrepreneurship and responding to the needs of the community. Innovation and technology commercialization is an important part of fulfilling that mission.

At Tulane, we feel that students need to experience an environment that goes beyond the traditional classroom. Supporting a culture of innovation is integral to preparing students for a 21st century education in the science and engineering disciplines. Our students already have a strong desire to make a positive difference in the world, but they need the tools and skills to translate their ideas into solutions.

To truly make a difference on the lives of our students and create an impact on the world, we must generate innovation more constructively, efficiently and effectively. We must expand our innovation footprint to bring together alumni, students, faculty, entrepreneurs, and policymakers who can work together on problem solving.

There will always be challenges that face our world, but with an interdisciplinary attitude and hands-on problem solving, we can answer these questions in novel ways. A coordinated effort is needed to develop new knowledge and promote new data, methods and metrics related to innovation.

The Center for Technology Commercialization

The Center for Technology Commercialization at Tulane University would coordinate the important work we are currently doing in technology innovation and expand our framework to impact more students and faculty while bringing more ideas to the marketplace.

Housed within the School of Science and Engineering, the Center for Technology Commercialization would be a home for anyone on Tulane’s campus to make advanced technological ideas a reality.

The Center would work closely with entities at Tulane to support student and faculty technological advancements and their commercialization process. These entities include the Office of Technology Transfer and Intellectual Property Development, the Phyllis Taylor Center for Social Innovation and Design Thinking, and the Freeman School of Business’s Levy Rosenblum Center for Entrepreneurship. These Centers bring specific expertise at various steps in the process but the CTC

“Our graduates have been involved in start-up companies across the country. When I speak with them, they often wish they could have started that process and learned more about the culture of innovation while they were at Tulane.” - Nicholas Altiero, dean of Tulane University School of Science and Engineering.
is essential to provide the infrastructure, programming and curriculum, and faculty expertise to translate advances in research to technological innovation and entrepreneurship.

The Center for Technology Commercialization will expand our efforts in these three significant areas: infrastructure, programming, and people.

**Innovative infrastructure**

A significant expansion in infrastructure would allow for dedicated spaces that support innovation with facilities and equipment suited for interdisciplinary collaboration, rapid prototyping, and creating technology and devices. With your help, we can build transformative, hands-on infrastructure that strengthens Tulane’s culture of design, innovation, and entrepreneurship.

The Donna and Paul Flower Hall for Research and Innovation will act as the hub for the Center for Technology Commercialization. With your support, we can build out dedicated space within this state-of-the-art building for a student incubator, wet labs and offices. A proof-of-concept incubator and wet lab space will provide students with a work environment aimed at taking research and technology from ideas to a sustainable business.

The Maker Space is Tulane’s interdisciplinary lab for ideation, collaboration, design, invention, and fabrication. Students and faculty from all across the university—including art, architecture, science and engineering—will use this shared space to transform classroom ideas into real-world products. Students are eager to create and to learn from each other. The Maker Space would transform the 1894 blacksmith shop space into a modern, collaborative space that serves student demand and adapts Tulane to the changes in higher education. With your help, we can provide this new infrastructure, support ongoing operations in the space, and equip it for maximum student efficiency and training.

**Cutting-edge programming**

Support would enable the center to offer students the tools to employ the fundamentals of technology commercialization and entrepreneurship. Through programming, such as lecture series, fellowships, and partnerships with alumni mentors, our students would be given a tool kit of resources to develop innovative ideas. Courses, workshops, and advanced degrees or certificates will encourage the development of new technology and equip students with the expertise to succeed.

For example, the Novel Tech Challenge asks students to solve a technical problem in an innovative and “novel” way. Students during the 2014-2015 year not only came up with a solution to solve a real-world problem, but they were also asked to build a prototype. The Challenge has been a tremendous success, but we need to expand our facility and equipment offerings and create additional programming and coursework to assist students in their endeavors.

**Faculty that make innovation possible**

The establishment of specific faculty positions such as a Director of Technology Commercialization and the Maker-in-Chief would not only be a driving force behind technology innovation at Tulane University, but these positions would facilitate collaborations across schools and departments. These faculty members would provide
ways for innovators to interact with each other through coursework, programming, their exceptional expertise, and more. These positions would build partnerships with local and national industry and act as a liaison to local and national entrepreneurial organizations.

**How can you support innovation at Tulane?**

- Center for Technology Commercialization Endowed Fund: at least $1,000,000

**Infrastructure**

- Maker Space and Equipment: $1,500,000 & $200,000 in equipment
- Student Technology Incubator & wet lab: $700,000
- Center Office: $150,000

**Programming**

- Faculty Spark Innovation & Curriculum Development Funds: $1,500,000
- Novel Technology Challenge: $500,000 Endowed Fund or annual underwriting
- Technology Innovation Endowed Lecture Series: $150,000

**Faculty**

- Director of Technology Commercialization: $300,000 for start-up
- Named Director of Technology Commercialization: $1,000,000 endowed fund
- Maker-in-Chief & Maker Space Technology Support: $700,000 endowed fund
LOOKING TO THE FUTURE

Your support means a transformation in innovation and technology commercialization at Tulane University. You are providing a framework for enhancing Tulane’s innovative engine in ways that will translate brilliant ideas and research into positive social and economic impact. In the past three years eight technology-based start-up companies from Tulane have located in New Orleans; these companies provide a high level of upside and will continue to enhance the local economy. Your support is an investment in Tulane, New Orleans and our economy. Together, we can have a tremendous impact and write the next chapter of innovation at Tulane University.