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Exploring Entrepreneurship as a Career: iMatSci and You

By Alaina G. Levine

Entrepreneurship. It is an exciting word. It is a word of both potential and kinetics, of problem solving, of innovation, invention, disruption, change, and challenge. It is a word that ignites, pushes, and pulls individuals, organizations, and even communities to alter the fabric of the universe. It is a word of a world of possibilities.

For many materials scientists and engineers, entrepreneurship also represents passion, drive, and, most interestingly, a profession. And make no mistake – an education in materials science and engineering (MSE) provides the perfect platform for a career in entrepreneurship. Not only are you learning and honing critical skills such as basic problem solving and analysis, but because of the nature of MSE research, you probably also have developed extensive teambuilding, communications, and project management skills. Because MSE is multidisciplinary, you gain experience interacting with people from different backgrounds and with diverse perspectives, and you develop abilities in creating synergy-bringing seemingly disparate ideas together towards a common goal. And then there is the nature of the person who would choose to study MSE (you!)- this is not an easy subject and requires bravery and boldness. After all, you are seeking to understand the essence of the world around us, to peer into a void and attempt to measure it, to pierce a veil around the unknown and attempt to define it.

In a certain respect, this is what an entrepreneur does, too. An entrepreneur looks for pain points, voids, or problems in systems and endeavors to alleviate them, fill them, or solve them. An entrepreneur constantly looks around to ask the questions “why?” and “how?” and aspires to inject value into an ecosystem with their own knowledge and abilities. This is what you do in MSE!

There are many roads to take for a career in entrepreneurship. Some people are tickled by the notion of starting their own company. Perhaps they have an idea based in technology that can be turned into a product and they want to launch a firm to get that product to market. Or perhaps they are passionate about the business side of starting their own company and managing it to success. It could be a combination of these, and in fact, if you do aim to start your own start-up, you’ll need to have an understanding of and an appreciation for working on both the technical and business side of the problem solving.

But there is more than one way to live a life and there is certainly more than one way to design a career in entrepreneurship. You do not have to start your own organization. You can work in a start-up or an early stage firm, which many scientists and engineers enjoy because it gives them a taste of entrepreneurship and exposure to many different elements of expanding a business without undertaking any of the risk. Established corporations are also on the hunt for entrepreneurially-inclined talent to work for them. You could be employed by a multi-national tech company, for example, and engage in entrepreneurship, in which you look for business opportunities that the “mothership” could pursue by leveraging its technical assets. These opportunities could take the form of spin-offs or simply new divisions in the larger company.

The ecosystems that support entrepreneurship are also looking for your talent. Technology transfer offices at major academic institutions, government laboratories, and agencies need smart, driven, business-focused STEM experts to help evaluate fellow researchers’ scientific and engineering innovations, to determine how they can be commercialized. Many STEM-educated professionals have launched their own entrepreneurship careers by starting as interns in tech transfer offices. There are even jobs with non-profits that focus on entrepreneurship, venture capital funds, and even banks.

So the opportunities are vast and it is really just a matter of your figuring out what it is that you enjoy doing and what piece of the entrepreneurship community you want to taste, experience, and impact.

Luckily, there are many resources available to help you in your mission to determine the right entrepreneurship professional path to take. MRS, as your strategic, lifelong career partner, provides a great starting point, with its unique [iMatSci Innovation Showcase](#). As described on the website, “iMatSci (which stands for “Innovation in Materials Science”) provides a platform for independent technology leaders and those at universities, research labs and start-up companies to demonstrate the practical applications of their materials-based technologies. With a goal of spurring collaboration that will accelerate the adoption of new materials technologies for real-world applications, iMatSci connects these innovators with early-stage investors, corporate technology scouts, R&D professionals and potential partners, all under one platform.”

iMatSci provides numerous ways for MRS members to engage in the entrepreneurial enterprise, all the while learning about careers in this space.

In fact, if you a pre-revenue or seed-stage materials innovator and entrepreneur looking to demonstrate the value of your product to high-level decision makers and materials venture investors, you can join us for the **iMatSci Innovation Showcase**, where you have the unprecedented opportunity to meet and interact with industry, R&D leaders, and investors who can help to effectively lead your venture to success! This signature event, held annually at the Fall Meeting in Boston, consists of fantastic opportunities to network with entrepreneurs and funders, learn skills that will help you take your ideas, products, and enterprises to the next stage, and promote yourself and your business. Each innovator is provided with tabling space at the Hynes Convention Center to present his/her technology or product using various forms of media such as pitch decks, marketing videos, prototypes and executive summaries. Presentations will be judged by experienced technology investors and industry professionals.

By participating in iMatSci, innovators are granted access to:

- A full schedule of workshops, seminars and panel discussions, with topics specifically geared towards the success of early-stage innovators
- One-on-one meeting spaces to showcase their innovations and interact with strategic partners, industry technology scouts, investors and collaborators
- Exclusive networking events, Q&A sessions, and receptions, and one-on-one meeting spaces to interact with potential stakeholders
- Resources including webinars, tip sheets, and the **opportunity to practice pitching, receive feedback from, and be funded by the Chemical Angel Network**
- **Cash prizes awarded** to the top three most innovative teams and a **\$10,000 investment from the Chemical Angel Network** most likely in the form of a convertible note.
- And more!

But even if you are not looking to present a business plan, you can (and should!) still participate in iMatSci. Why? Because you will:

- Connect with up-and-coming materials innovators from around the world and learn about their new technologies as they progress through their earliest stages of development.
- Make new contacts and network with influencers and executives from industry, academia, government agencies and early-stage capital firms that drive the materials industry.

- Expose yourself to potential career avenues in startup organizations, where you can make a bigger impact in a fast-paced and leadership-driven atmosphere.
- Stay abreast with current trends in the materials industry and better focus your research to relevant industry pain points. Learn to communicate your research to a broader audience and gain meaningful impact in the world.
- Explore new innovation-related seminars, workshops and panel discussions featuring leading experts, analysts, and business moguls who will answer your questions and give you key insights into their successes, failures, growth and opportunities.

[iMatSci's website](#) lists out many of the companies that have been presented at previous iMatSci Innovation Showcases, which will give you a chance to see what other MSE professionals have pursued for their careers. In fact, many of iMatSci's past innovator teams have gone on to achieve great success; collectively they have raised over \$66.7 million in funding and have built new and sustaining partnerships! Remember that iMatSci's focus is on helping you innovate and find success in a manner that is right for you.

Here are a few more tips to help you jump start your career in entrepreneurship. Naturally, much of my advice will have to do with networking.

- Utilize resources at your institution. Reach out to your tech transfer office, business school, entrepreneurship program. Get on their mailing lists, follow them on social media, attend their events, and ask for informational interviews with leaders. You will find out about different needs within the entrepreneurship spectrum that you can possibly pursue as a career.
- Access local networks. Many communities have start-up groups, incubators, and accelerators. Network with those groups to meet likeminded individuals and learn about locally-based resources (such as investors' networks, angel groups, and start-up conferences) that can help you achieve your entrepreneurship goals
- Leverage online networks. There are plenty of online groups devoted to entrepreneurship, across multiple platforms. Take advantage of these!
- Attend start-up events. iMatSci is a great start, and there are probably local events in your geographic region in which you can participate.
- Volunteer. Organizations such as MRS and related local organizations always have a need for engaged, enthusiastic volunteers. When you volunteer you give yourself access to hidden career opportunities because you are networking with leaders in the field and they are getting a chance to see you in action and experience your talent, ambition, knowledge, and positive attitude.

Now that you have learned a bit about iMatSci and how valuable it can be in crafting your unique career in entrepreneurship, get ready to sign up and participate. The application window opens on 15 April 2019 and closes on 15 September. Start applying for participation at this portal: <https://imatsci.mrs.org/>.

Here's to your success in entrepreneurship- See you at the iMatSci Innovation Showcase!

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Concepts and excepts in this blog have appeared in Levine's other works, including articles, speeches, her book, and courses.