## Project Summary - Meet the Solvers: Established Small Businesses and the Commercialization of Complex Innovations

Academics, policy makers, and the general public agree that innovation is a key driver of economic dynamism and growth. As a result, a great deal of research has sought to understand how innovation is facilitated within and across organizations. For example, a large body of work has investigated what types of organizations develop new products and create jobs. Young, fast-growing startups have been shown to develop disruptive new products that can overturn entire sectors. Large corporations have been shown to introduce a steady stream of incremental innovations, to breed entrepreneurs that "spin out" new businesses, and to acquire and scale young companies with promising technologies. At the inter-organizational level, scholars have theorized and investigated "open innovation". In particular, such work has considered how innovating firms use input from customers and/or open source development practices to design new products.

While the existing work has greatly enhanced our understanding innovation, a gap remains. Specifically, we have largely ignored small, established businesses. This is despite the fact that such businesses are often suppliers in highly innovative, growthdriven industries. My project addresses this gap through an inductive investigation of established small businesses operating in the global, innovation-driven aerospace and medical device industries.

My project uses 49 semi-structured, ethnographic interviews of stakeholders associated with the aerospace and medical device industries to understand how established small businesses contribute to product development efforts. My results, in part, confirm what we already know about such organizations. They rarely engage in their own R&D, hold minimal intellectual property, and typically have little interest in doing either. This is because the business owners and employees are more interested in maintaining a high quality of life than in maximizing profits or growth.

Paradoxically, however, I find that it is exactly these characteristics that make small businesses valuable innovation partners for startups and large corporations. The small businesses are filled with highly experienced individuals with deep domain expertise. Because they are not focused on identifying and attacking high-growth opportunities, these experts apply their knowledge to solving customers' problems. This includes quickly and effectively resolving design challenges and working out production processes for customers' groundbreaking new ideas. In addition, the small businesses' desire to remain in New England means that they cannot compete on a cost basis with competitors in less expensive locales. As a result, they stay small and compete only for jobs that rely on their deep domain knowledge. At the same time, their smallness means they can flexibly adjust to changing needs as the product development process unfolds. Such flexible adjustment is at odds with business models of larger competitors.

In summary, my project takes a first step towards understanding the critical role small, established businesses can and do play in larger innovation ecosystems. I suggest that scholars and policy makers acknowledge and further investigate this role if they wish to promote sustainable economic development and growth.