



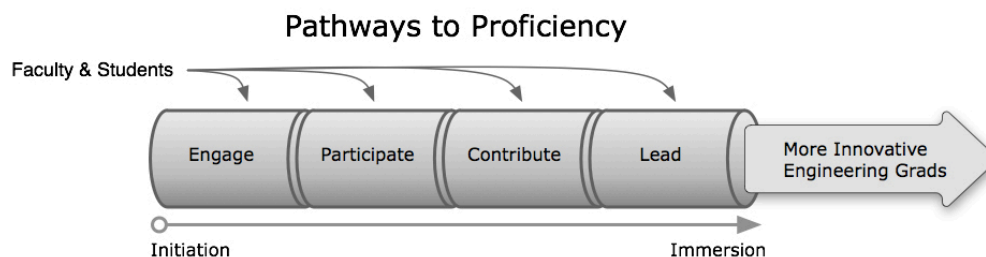
## **Executive Summary**

The National Center for Engineering Pathways to Innovation (Epicenter) is dedicated to creating a nation of entrepreneurial engineers. Preparing undergraduate engineers to be more innovative and entrepreneurial, and increasing undergraduate engineering enrollment, learning, and retention, are key national priorities. To address these critical needs, we will create bold innovators with the knowledge, skills, and attitudes to contribute to the prosperity of the U.S. economy and society at large.

Based on initial grant funding from the National Science Foundation, the Epicenter will achieve its mission through two major thrusts. One focuses on influencing faculty and students in undergraduate engineering schools, and the second involves curating and delivering compelling resources to that community.

The Epicenter is national in scope with four distinctive elements:

- Built upon a base of knowledge from distinct fields: learning sciences, engineering education, and innovation and entrepreneurship education.
- Draws on leading institutions to create learning materials and methods, including those of the Stanford Technology Ventures Program (STVP).
- Supports a community for educators, scholars, and students around entrepreneurship and innovation education, and develops instruments and processes to assess students' skills.
- Provides Pathways to Proficiency for teaching and learning about engineering innovation and entrepreneurship.





The Epicenter will employ an open innovation approach to gathering and disseminating resources, supported by a Curation Board composed of leading entrepreneurship and innovation educators. With the support of an Advisory Board, we will build upon existing high quality approaches across the U.S. and globally to develop and deliver programs with nationwide impact.

Epicenter research will contribute to understanding innovation and entrepreneurship capacity development in engineering students and faculty by facilitating a national dialogue among the larger innovation and entrepreneurship educational research community. In the service of educational practice, the Epicenter will conduct its own selective research studies of students and faculty.

The Epicenter website will serve as a catalyst for our community of educators and students contributing and using a wide range of resources, including teaching materials, curriculum, and online media, and events. We will also create iconic entrepreneurship experiences, called Sparks, for regional and national audiences, designed to raise awareness and engage faculty, students, and potential partners in building a community.

Working with the National Collegiate Inventor and Innovators Alliance (NCIIA), the Epicenter seeks to connect the nation's accredited engineering programs. We will reach out to institutions and faculty members through STVP and NCIIA's networks, and will grow the community nationally by connecting with deans, faculty, and major engineering education organizations to reach the 25,000 engineering faculty in the United States. We will develop Faculty and Student Ambassador networks to sustain the engagement activity to reach the hundreds of thousands of students enrolled in engineering programs annually.

The Epicenter will continue to grow its network of external partners, drawing from a range of industries and innovative companies in the U.S. These partners will provide funding for specific programs, curriculum development, mentoring, student access to practitioners, and the online distribution of materials.

The core Epicenter team is comprised of faculty and staff with established records in innovation and entrepreneurship education, engineering research, assessment, and program development and delivery. The project principal investigators are Professors Thomas Byers, Kathleen Eisenhardt, and Sheri Sheppard. Director Tina Seelig and Associate Director Leticia Britos Cavagnaro will lead the management of the Epicenter.

For more information and to sign-up for updates, visit [epicenter.stanford.edu](http://epicenter.stanford.edu).