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AACSB International
The College of Management at North Carolina State University is the current host to the Center for Innovation Management Studies (CIMS), whose stated purpose is “to study technological innovation and its management, disseminate that knowledge, and help companies apply it to achieve bottom-line results.” CIMS is a leading authority on innovation management and innovation research, creating, synthesizing and disseminating information on innovation management in and for modern businesses.

CIMS had initially been established at Lehigh University in 1984 as a spin-out of an Industrial Research Institute project to understand the critical management factors that correspond to successful industrial innovation. On completion of the initial project, Alden S. Bean, Founder and Executive Director (emeritus) of CIMS, applied for a grant from the U.S. National Science Foundation for the funds to continue research on the topic. These funds ensured the sustainability of the new center, whose role was to define major innovation management problems that were researchable and broadcast those problems to the academic community to be addressed.

In 1987, a task force of the U.S. National Research Council released a report, Management of Technology: The Hidden Competitive Advantage, which noted in its preface that “improving how Americans manage technology development and implementation” was an often overlooked response to concerns that U.S. industries were losing their competitive edge. The report, which Bean refers to as an “important benchmark publication,” called for cross-disciplinary research and curriculum development involving collaboration between the business, engineering, and social/behavioral science disciplines.

Early initiatives of CIMS were influenced by this report, as well as the outcomes of a National Academy of Engineering meeting that took place around the same time. Participating universities, of which Lehigh University was one, were required to send one faculty member from the engineering school and one faculty member from the business school to the meeting. The purpose of the meeting was to draw attention to the recommendations in the NRC report and to the need for an integrated curriculum in support of technology management that neither engineering nor business schools were delivering. Partly in response to this meeting, CIMS initiated a Master’s in Management of Technology degree program at Lehigh University, and began to expand its efforts beyond research to include the development of learning experiences.
In 2000, CIMS and its executive director (Bean) moved south to the College of Management at North Carolina State University. The College of Management had been established just eight years earlier with a vision to be “a leader in management education through strong business partnerships, focusing on technology and innovation, promoting entrepreneurial programs, and developing international initiatives and alliances.” The focus on entrepreneurship and innovation was chosen, in part, to help differentiate the business school from those at other nearby state institutions, and the addition of CIMS was a major step toward fulfilling that vision.

Today, CIMS is supported by the National Science Foundation, the Kenan Institute for Engineering, Technology & Science, and North Carolina State University. CIMS also partners with the Industrial Research Institute (IRI) to offer non-degree executive education via their Innovation Management School (IMS), described in greater detail below. The management and coordination of CIMS activities is handled by two individuals: a center director, Professor Paul Mugge, and a program director, Ms. Michelle Grainger. Much of the center’s real strength, however, lies in its “Innovation Network” of corporations, researchers, and universities around the world.

Corporate members, of which there are currently ten, provide financial support to the center and benefit from access to research results, opportunities to network with other members and experts, customized training, and onsite visits by CIMS staff. Corporate membership is limited to only one company per industry category, says Paul Mugge, Director of CIMS, so that members will be forthright about the problems they’ve encountered and willing to share the depth of information needed to provide a solution.

The Innovation Network is further rounded out by a network of researchers, representing a variety of institutions, who maintain a distinguished record of research in the field of innovation management. Researchers with skills or research interests matching a particular research need are matched to projects defined by corporate members and also to custom research requests from both members and non-members. Often, the researchers’ ongoing research on general topics of interest is well-positioned to apply to specific projects that arise. Over the years, more than 120 researchers have contributed their skills and expertise in support of CIMS-sponsored projects.

Many other initiatives of CIMS derive from, and are supported by, center-supported research. These include web-based tools for use by corporations, executive education courses, and a student practicum for MBA students in certain concentrations.

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1 In general, CIMS research initiatives are framed around five core competencies (Idea, Market, Platform, Portfolio, and Project Management) and five management dimensions (Strategy, Organization & Culture, Processes, Tools & Techniques, and Metrics), as detailed in the CIMS Innovation Management Framework, a 2006 white paper by Mugge (http://cims.ncsu.edu/ims/IMSWhitePaper.pdf).
Web-based tools include a series of assessments and decision frameworks that are available to member and non-member companies. Assessments are designed to uncover companies' strengths, weaknesses, and strategic opportunities related to their ability to support and drive innovation. Decision-making tools are designed to help companies take action to enhance innovation management procedures and systems, and fall into one of three categories: core competency, management dimension, and environmental influences.

The Innovation Management School (IMS) is a 12-18 month executive education certificate program for cross-functional teams of up to 25 individuals. The program, which is flexible and customizable, has a core curriculum centered on successfully managing innovation from diverse perspectives within an organization, but also offers specialized tracks on product, process, or service innovation. CIMS staff and Innovation Network researchers also provide customized, on-site workshops and speakers for interested groups.

CIMS is also involved, in conjunction with the College of Management's Department of Management, Innovation, & Entrepreneurship, with the design and delivery of three concentrations available to Jenkins MBA students: biosciences management, entrepreneurship and technology commercialization, and innovation management. Faculty from the schools of engineering, management, textiles, and agriculture & life sciences team-teach in the various programs in order to provide a diverse range of expertise and perspectives. The multi-disciplinary approach is further reflected in the Integrated New Product Development laboratory course for Innovation Management concentration students; the course requires cross-disciplinary teams of students to respond to a corporate-sponsored development project by evaluating and designing a new product or service.

Other Activities of the College of Management

Although CIMS is the platform for a large percentage of NCSU College of Management’s activities in support of innovation, there are other units of the school that also contribute in this regard. For example, the College of Management’s Jenkins Graduate School of Management also offers a one-year, dual-degree Master of Global Innovation Management (MGIM) degree program in partnership with France’s Université Paul Cézanne Aix-Marseille III’s IAE Graduate School of Management.

Aimed at technology-oriented students, the MGIM program includes courses in the core business disciplines as well as on topics such as marketing innovation, intellectual property, services innovation, and project management, and culminates with a summer internship. Fall semester classes are held at Université Paul Cézanne, and Spring semester classes at NCSU. The summer internships are available
in France, the U.S., or other global locations. Students receive a degree from each school at the culmination of the MGIM program.

Another activity of the College of Management in support of innovation is the Technology Entrepreneurship Commercialization (TEC) Initiative. As with the CIMS, the TEC program began with a grant from the National Science Foundation and the Kenan Institute for Engineering, Technology & Science in 1994. From 1995 to 2002, the program focused on educating graduate students in both business and technical fields in technology entrepreneurship and commercialization. In 2002, the TEC Program transitioned into the Technology Entrepreneurship and Commercialization (TEC) center at the College of Management.

Since the beginning of the TEC initiative, the program has been influential in the commercialization of over 100 technologies originating in both firms and universities. The TEC has also been instrumental in the launch of several companies based on these technologies.

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End Notes