

New Mexico-Chihuahua Partnership for Innovation

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Lead Institution: New Mexico State University

The New Mexico-Chihuahua Partnership, made up of research universities from New Mexico and the state of Chihuahua, Mexico, regional and state economic development agencies, National Laboratories, technology consortia, research organizations, and private businesses, will develop an interdisciplinary, multi-faceted approach to educating emerging scientists and technology managers in technology development, commercialization of research, and marketing. Bi-national, cross-functional teams of students, faculty, and other mentors will have opportunities to participate in ongoing programs sponsored by partnership organizations; to compete in a technology-based product design competition; to co-author articles for publication; to visit each other's institutions and research laboratories; and to present their work at a Technology Showcase to which representatives of regional business, industry, and government will be invited. The proposed project will develop researchers, technology managers, and entrepreneurs capable of working in an international environment and of spurring economic development in a region characterized by high levels of poverty.

The proposed project will support institutional, state, federal, and multi-national initiatives to improve economic development in the U.S.-Mexico border region through collaboration among the partners. Project goals include the following:

- Creating cross-functional design teams of undergraduate students, with advisors from the faculty and partner organizations and businesses, to develop technology solutions to regional needs that can be commercialized
- Forming start-up companies based on the technologies developed that demonstrate both a solution to a regional need and sustainability
- Establishing an electronic, bilingual Alliance for Technology network, including an electronic, bilingual newsletter, to promote communication, technology partnering, and technology development and commercialization.
- Recruiting women and minority students to participate in project activities (in New Mexico, primarily female, Hispanic, and Native American students; in Mexico, primarily indigenous students and females)
- Identifying and supporting student internship positions with interested technology businesses and organizations
- Integrating technology development, management, commercialization, and marketing into courses and experiences for science, engineering, and business students at the partnership institutions
- Sponsoring a Technology Showcase of student/faculty projects for an audience representing business, industry, government, and economic development interests in New Mexico and Chihuahua

The intellectual merit of the proposed project lies in the advancement of scientific knowledge and collaboration in technology transfer in a region seeking greater economic development and struggling to mitigate the artificial barriers to coordination of efforts created by a bi-national border. The project will contribute to understanding of the special challenges to international collaboration and possible solutions/best practices. The project will also facilitate research on the technology commercialization process. More needs to be known about the effectiveness of market strategies, incentive structures, and strategic alliances that already exist. Such research will be carried out in collaboration with the small businesses and student/faculty teams that are partners in the proposed project.

The broader impacts of the project include creating opportunities for underrepresented groups to participate in international research and business ventures; greater internationalization of both U.S. and Mexican institutions; economic development through creation of new start-ups; integration of research and marketing into the study of science; transfer of technology that has been developed at partner institutions in response to specific borderland needs; and maintenance of a strong partnership of institutions and organizations on both sides of the border.