

Management Plan

Roles and Responsibilities of Each Partner Organization

New Mexico State University (NMSU) Office of the Vice Provost for Research will take primary responsibility for implementation and coordination of the proposed project. New Mexico State is the only Land-Grant institution in the nation that is also classified as Hispanic-serving and ranked by the Carnegie Foundation as Research-Extensive. It is located in the southern New Mexico city of Las Cruces, which has a population of about 75,000. Total fall 2003 enrollment for NMSU main and branch campuses was 23, 578, with minority enrollment greater than 48%. NMSU's sponsored program expenditures reached \$161 million in 2002-2003.

Existing staff in the Office of the Vice Provost for Research (VPR) will work with the Project Director, Ms. Ida Baca, in the Office of the Vice Provost for International and U.S.-Mexico Border Programs (OIP) to manage day-to-day implementation of the New Mexico-Chihuahua Partnership for Innovation. VPR, the Project Director, and the Co-PIs will work with the science, engineering, and business departments of each partner institution to ensure that project activities proceed smoothly and according to the timeline and that minority students are recruited for the teams that will participate in the PFI project. VPR will also work with OIP to develop a bilingual, electronic Technology Alliance network and to produce a bilingual, electronic publication communicating research commercialization opportunities. OIP and VPR will work with all partners to sponsor a Technology Showcase for faculty and students from partner institutions to present their technological innovations to an audience representing business, industry, government, foundations, and venture capitalists in the region. In addition, the VPR and OIP will offer office space, equipment, supplies, and support personnel to the proposed project.

Located in rural Socorro, New Mexico, **New Mexico Tech (NMT)** specializes in science, engineering, and related fields. NMT will participate in all project activities, selecting a faculty leader who will in turn designate a student design team from its Management of Technology program. The faculty leader will also serve as NMT's representative to the Management Team to help coordinate project activities among all the partners, contribute content for the electronic network and newsletter, and help to plan and carry out the Technology Showcase.

The **Universidad Autonoma de Ciudad Juárez (UACJ)** is located in the city of Juárez, Mexico, just across the Rio Grande from El Paso. UACJ is organized into four Institutes, including Engineering and Technology; Social Sciences and Administration; Architecture, Design, and Art; and Biomedical Sciences. Total enrollment is approximately 14,000. UACJ has greatly strengthened its infrastructure in recent years with the addition of new computer labs and buildings in engineering and biomedicine. Each year for the past three years, UACJ has hosted a week-long conference featuring student and faculty presentations on biodiversity, biomedicine, environmental biology, and biotechnology. UACJ also publishes a journal, *Science on the Border*. UACJ will perform the same functions as NMT.

Tecnológico de Monterrey (ITESM)—Chihuahua is part of an institution that has campuses throughout Mexico. The Chihuahua campus offers degrees in International Commerce, International Relations, Marketing, Business Management, and Engineering. ITESM has a business incubator and specialized laboratories in Electronic Systems, Mechanical Engineering, Automated Manufacturing, and Integrated Systems. ITESM will perform the same functions as NMT and UACJ.

Los Alamos and Sandia National Laboratories will appoint representatives to the Management Team and offer training and technical support from their technology transfer and small business departments. They will also help provide advisors to the student/faculty teams from the New Mexico partner institutions and will make available equipment for product testing and include project participants in ongoing activities at the Laboratories as appropriate.

The **New Mexico Economic Development Department** is charged with facilitating business opportunities and growth throughout the state. NMEDD provides a wide range of services for New Mexico businesses and communities as well as information for corporations considering a relocation or expansion into the state. The NMEDD Office of Science and Technology, directed by **Michael Orshan**, serves as the state's advocate for technology-based business. NMEDD will identify a representative to

serve on the Management Committee, provide coordination between PFI project activities and related statewide initiatives, and help publicize and encourage NMEDD employees to attend the Technology Showcase.

The **Chihuahua Trade Office** has worldwide connections related to economic development, including strong relationships with Japanese entrepreneurs interested in locating in Mexico and the U.S. In addition, CTO maintains constant contact with institutions of higher education, private business and industry, and research and governmental organizations in the state of Chihuahua and throughout Mexico. As part of the commitment of the Governors of New Mexico and Chihuahua to increase trade and collaboration, CTO has been given an office on the main NMSU campus that is affiliated with the Office of International Programs. This physical presence in southern New Mexico greatly facilitates communication and coordination among all partners in the proposed project. **Armando Martinez**, director of CTO and a co-Principal Investigator, will be responsible for overall coordination and implementation of project activities among the Mexican institutions and partnership organizations.

The **Centro de Investigacion en Alimentacion y Desarrollo (CIAD)**, directed by **Victor M. Guerrero Prieto**, will host student researchers in support of the design teams' pursuit of technology solutions. The **Centro de Investigación en Materiales Avanzados (CIMAV)**, will also host student researchers. While not a university, CIMAV does offer master's degree programs and will thus participate as a blend between the institutions of higher education and the research laboratories by fielding a design team. Both CIAD and CIMAV will appoint representatives to the Management Committee, help provide advisors to the student design teams from Mexico, and contribute expertise to programs at the partner institutions.

Two Chihuahuan associations, Asociación de la Industria Maquiladora de Chihuahua and Centro de Desarrollo de Proveedores, will enlist members to provide expertise and support to project activities. Each will appoint a representative to the Management Committee and recruit volunteers to advise and support the design teams.

The **High Tech Consortium of Southern New Mexico (HTC)**, headquartered in Las Cruces, is working to make New Mexico a regional technology leader by promoting a business atmosphere conducive for growing the high tech sector, establishing partnerships that promote high tech industries, and supporting the development of a qualified high tech workforce. HTC has 58 members ranging from small, privately owned companies, to a Fortune 500 company, to a National Laboratory. **Charles Blanchard**, Executive Director, will serve on the Management Team. In addition, HTC will provide advertising for the Technology Showcase and other project events open to the public, encourage their members to participate in project activities and attend the Technology Showcase, assist the student/faculty teams in competitions, and provide internships for students.

LaSys is a New Mexico-based company focused on the development of unique advanced optical media exclusively licensed from the work of NMSU faculty in the Department of Physics. LaSys is located in NMSU's Genesis Center, an incubator space that includes both office and completely furnished wet lab space. **Harold Smith**, CEO of LaSys will serve on the partnership's Management Committee and will advise all members on strategies for attracting entrepreneurs to develop patented research into marketable products.

The **Mesilla Valley Economic Development Alliance** is a 501(c) (3) non-profit organization contracted by the City of Las Cruces and Dona Ana County to provide economic development and marketing for the region. Through coordination provided by director, **Steve Vierck**, who will serve as the organization's representative to the Management Committee, MVEDA will communicate with PFI staff and other partners concerning opportunities and events related to economic development that could further the goals of the proposed project.

The **Physical Science Institute**, is a not-for-profit entity on NMSU's campus whose purpose is to facilitate long-term technology incubation, university-business partnerships and jobs for New Mexico based on technologies developed by New Mexico researchers. **Michael Tentnowski**, executive director, will serve as PSI's representative to the Management Committee and will ensure that PSI's resources and expertise are effectively integrated with project activities.

Technology Ventures Corporation (TVC), founded by Lockheed Martin Corporation, facilitates the commercialization of technologies developed in the national laboratories and research universities to support the creation of high tech companies and jobs in New Mexico. TVC will appoint a representative to the PFI Management Committee, provide information about project-related training and internship opportunities, and support the Technology Showcase.

Coordination of Project Activities

Dr. Richard Hills, Interim Vice Provost for Research at NMSU, will serve as the Principal Investigator for the proposed project. Dr. Hills will chair the **Management Committee**, which will include a representative from each of the partner organizations and will meet at least quarterly to ensure progress in all project activities. The Management Committee will make decisions regarding implementation of activities, set policies when necessary, and make staffing changes as needed. The **Project Director, Ida Baca**, Associate Director, Office of International Programs, will oversee day-to-day communication and activities and will be assisted in the creation and maintenance of the bilingual electronic network and newsletter by a bilingual staff member in her office. Ms. Baca will make quarterly reports to the Board concerning project accomplishments, barriers, unanticipated problems, suggested solutions, and related information and will report to Dr. Hills on a regular basis regarding progress towards goals. Ms. Baca is bilingual and has significant experience in project management involving multiple partners, including partners from Mexico and other countries.

The four Co-PIs—**Dr. Rudi Schoenmachers**, Director of the Engineering Research Center; **Dr. Kevin Boberg**, Director of the Business Research Center; **Dr. Everett Egginton**, Vice Provost for International and U.S.-Mexico Border Programs; and **Armando Martinez**, Director of the Chihuahua Trade Office—will assist Dr. Hills and Ms. Baca in ensuring that all partners in the project make continuous and strong progress towards accomplishment of the goals.

The **faculty leaders** at each campus will be responsible for establishing, advising, and monitoring the student design teams. They will ensure that appropriate educational experiences, such as workshops, visiting speakers (many from the partner organizations), conferences, and opportunities for competition are made available to the students on the design teams and to the campus at large, when feasible. In cooperation with Ms. Baca, they will make arrangements for students to travel to and stay at the partner institutions for project activities. They will also devote a month during the academic summer to working on a daily basis with the design teams on development of a technology solution to the selected problem along with a feasibility study and business plan. The faculty leaders, with assistance from partner organizations will link the student design teams with representatives of business and industry who can assist them with the development of their projects.