

New Product Development Center for Small Rural Manufacturers

Mission

The New Product Development Center links the innovative ideas and capabilities of rural manufacturers with the knowledge and technical expertise of OSU faculty to develop and commercialize economically competitive new products that strengthen rural economies.

Vision

The New Product Development Center will be recognized as *the* national and international model for universities working with small rural manufacturers to enhance the rural economy.

Core Values

- **Diversity**—We respect others and value diversity of opinion, freedom of expression, and other ethnic and cultural backgrounds.
- **Integrity**—We are committed to the principles of truth and honesty, and we will be equitable, ethical, and professional in our development work.
- **Relevance**—We are committed to programs that make a difference in people’s lives and the economy of the state.
- **Service**—We believe in the land-grant philosophy of serving others, including students and the citizens of our state, nation and global communities.
- **Teamwork**—We believe in the importance of contributions through the synergistic efforts of teams working together across disciplines, colleges, and institutions.
- **Intellectual Freedom**—We believe in ethical and scholarly questioning in an environment that respects the rights of all to freely pursue knowledge.
- **Excellence**—We seek excellence in all our endeavors, and we are committed to continuous improvement.
- **Stewardship of Resources**—We are dedicated to the efficient use of resources. We accept the responsibility of the public’s trust and are accountable for our actions.

Goals, Critical Success Factors, Objectives, and Strategies

Goal One: Economic Development—OSU will build on the NPDC’s emerging early successes in improving the sustainability and competitiveness of small rural manufacturers and thus become the leading U.S. university outreach organization in new product development and commercialization.

Critical Success Factors:

- Increase state funding by \$100,000 per year through 2009
- Develop SBIR funding with a target of \$1,000,000 per year by 2009
- Develop federal funding through a multistate initiative funded at \$4.5 million per year by 2006 with OSU receiving \$1.5 million per year
- Develop Oklahoma State Regents’ funding of \$250,000 for economic develop initiative
- Increase the number of proposed projects to 3 times the number that can be funded per year
- Increase the number of projects deserving of funding (“fundable projects”) to twice the number for which funding is available per year

Objectives:

Objective 1.1: Leverage current resources and increase the funding available to the NPDC to support projects and programs.

Strategies:

- Conduct briefings for legislators that include manufacturers’ testimony and NPDC project impact.
- Work with faculty and progressive manufacturers to turn SBIR suggestions generated by OSU researchers into agency requests.
- Continue working with partners from other states to develop political support for the federal initiative.
- Use successes of Applications Engineer and NPDC programs to develop funding for a pilot program to extend programs to other disciplines and universities.

Objective 1.2: Increase the number of manufacturers proposing projects and increase the quality of the proposals.

Strategies:

- Develop and deliver an educational program conveying the importance of new product development and introduction to the sustainability and profitability of small rural manufacturers.

- Develop and deliver a training program to manufacturers that improves their ability to select new products that enhance their economic sustainability.

Goal Two: Diversity and Student Development—Give traditional and underrepresented students hands-on real world experience in new product development with existing small rural manufacturers.

Critical Success Factors:

- Increase student involvement in product development to an average of 2 per project
- Increase student involvement in market evaluation and business plan development to 1 per project
- Increase involvement of underrepresented students to 2 per project

Objectives:

Objective 2.1: Increase the level of student involvement, including underrepresented students, in NPDC projects.

Strategies:

- Develop an educational program to inform students about opportunities and rewards for being involved in NPDC projects.
- Develop relationships with academic departments, advisors, and student organizations to publicize the opportunities available to students through the NPDC
- Develop a program of rewards for students working in the NPDC to include publicity, academic credit, and certification.
- Develop a partnership with Langston University to increase participation of underrepresented students.

Objective 2.2: Use the NPDC to increase the quality and quantity of hands-on real world experiences available to students.

Strategies:

- Develop an internship program co-supported by the NPDC and participating small rural manufacturers to provide students with work experience opportunities.
- Strongly encourage faculty to utilize students whenever possible for prototype development of NPDC projects.
- Develop a partnership with regional universities to provide business students hands-on experience in developing marketing and business plans.

Goal Three: Academic Excellence—Help increase the number, quality, and diversity of graduate students by building on NPDC successes.

Critical Success Factors:

- Increase the number of academic departments citing the NPDC in recruitment literature
- Develop, in cooperation with the Vice President for Student Affairs, literature citing the NPDC to be used in recruiting underrepresented students
- Increase the number of citations of the NPDC in literature used for student recruitment

Objectives:

Objective 3.1: Use the NPDC to help recruit students who are interested in application-oriented programs as opposed to research-oriented programs.

Strategies:

- Brief departments on the opportunities available to use the NPDC in recruitment of quality students
- Conduct meetings with the Vice President for Student Affairs to develop recruiting information
- Work with industry partners to develop information for use in recruitment
- Offer students opportunities to further develop classroom skills through work with faculty on real world NPDC projects

Goal Four: Human Resources—Develop the interests and abilities of faculty and staff in serving the new product development needs of rural Oklahoma manufacturers.

Critical Success Factors:

- Double the number of qualified faculty involved in NPDC projects in 5 years
- Increase professional papers developed by faculty working on NPDC projects
- Increase faculty consulting and internships with small rural manufacturers

Objectives:

Objective 4.1: Develop faculty and staff knowledge of and interest in the new product development needs of rural Oklahoma manufacturers.

Strategies:

- Conduct briefings to academic departments explaining the importance of NPDC activities and the opportunities that exist for faculty contributions
- Use college faculty meetings to recognize faculty that participate in NPDC projects
- Assess the experiences of faculty participating in NPDC projects to increase the quality of future projects

Objective 4.2: Increase opportunities for faculty participation and development through NPDC projects.

Strategies:

- Attract a greater number and greater diversity of NPDC projects to promote participation by a greater number of faculty members
- Develop strong partnerships between the NPDC, academic departments, and small rural manufacturers to provide valuable training and internship opportunities for faculty and staff

Goal Five: Partnerships—Develop partnerships with other organizations to better serve small rural manufacturers’ new product development needs.

Critical Success Factors:

- Partner with 4 organizations within 3 years

Objectives:

Objective 5.1: Develop partnership with local, state, and national organizations.

Strategies:

- Develop and submit proposals to national organizations
- Build on emerging NPDC successes to develop relationships with local manufacturers’ councils to publicize NPDC activities and capabilities
- Develop partnerships with regional universities to increase student participation and provide manufacturers with business and marketing analysis
- Conduct conferences with potential partners to discuss the opportunities for partnership with the NPDC and develop strategic plans for future actions
- Continue partnership with Oklahoma Alliance for Manufacturing Excellence and Oklahoma Technology and Commercialization Center

Objective 5.2: Leverage NPDC resources by partnering with other local, state and national organizations to better serve small rural manufacturers’ needs.

Strategies:

- Use partnerships with regional universities to increase student participation and provide manufacturers assistance developing marketing plans for new products
- Use state organizations to provide product market evaluations to the NPDC and NPDC clients to assist manufacturers in making better product development decisions
- Use state and national organizations to provide manufacturers assistance in commercializing new products
- Develop partnerships with other organizations nationwide to develop support for a federal initiative linking multiple states facing similar challenges

Goal Six: Outreach—Educate manufacturers state- and nationwide about the importance and potential impact of new product development and commercialization.

Critical Success Factors:

- Educate 4 new manufacturers each year on the importance and process of implementing new product development and commercialization
- Increase the number of technology and engineering students leaving the university and working for manufacturers to 25 in 4 years

Objectives:

Objective 6.1: Use the NPDC to educate manufacturers about the importance and impact of new product development.

Strategies:

- Research the impact of new product development specifically on small rural manufacturers
- Develop and distribute educational materials about the importance and impact of new product development to small rural manufacturers through brochures, presentations, and web sites
- Use the NPDC to provide manufacturers experience in conducting new product development, providing them the experience to conduct future development on their own
- Use NPDC experiences and partnerships to help manufacturers move new products into commercialization

Objective 6.2: Utilize student participation for the benefit of the student, the manufacturer, and the university.

Strategies:

- Use student participation in NPDC projects to encourage manufacturers to hire OSU graduates
- Use internship programs and other student participation to transfer technology from the university to the manufacturer

Goal Seven: Image/Pride/Recognition—Publicize the activities and achievements of the NPDC through appropriate presentations, websites, and print and broadcast media.

Critical Success Factors:

- The NPDC will be recognized as the leading organization in new product development assistance for small rural manufacturers

Objectives:

Objective 7.1: Publicize the NPDC's impact to interested parties.

Strategies:

- Evaluate the impacts made by new products
- Develop a newsletter to distribute to manufacturers, legislators, and other influential individuals showing the importance of the NPDC projects and the impact they are making.
- Develop a website publicizing activities of the NPDC.
- Make presentations at national and international meetings, at least 2 per year by 2009