To: Jobs and Innovation Accelerator Challenge Advisory Team Members
From: Zulma Toro-Ramos, Dean, WSU College of Engineering
Date: May 2012
RE: Wichita State University, Center for Innovation and Enterprise Engagement

Wichita State University, Center for Innovation and Enterprise Engagement
Kansas Board of Regents Approved Center: October 2010, initially staffed in February 2011

Center for Innovation and Enterprises Engagement (CIEE)
Background: Composites Kansas WIRED, July 2007 through June 2010
Summary: In 2007, Composites Kansas (10-county Wichita labor basin) was awarded a Department of Labor (DOL) Workforce Innovation in Regional Economic Development (WIRED) grant. The region’s transformational focus was placed on increasing the competency of workforce and expanding education and training in science, technology, engineering and math. With WIRED funding, the region served more than 200 firms and educated more than 2,900 employees. Composites Kansas trained more than 325 educators, developed more than 50 curricula, and equipped two state-of-the-art laboratories – composites lab and non-destructive testing lab.

Market Gap: The types of technical assistance available to regional firms were limited with the DOL funds as they could not be used for firm specific commercialization of existing research and development (R&D) or technology transfer/migration counseling. Regional firms requested engineering technical expertise and business expertise to support and inform their transition to next generation materials and processes and expand their capacity to manufacture improved and new products.

Sustainability Plan: In early 2010, a Strategic Planning Task Force was conveyed to develop a coordinated regional economic development strategy for composites and advanced materials. Through this process, regional leaders considered numerous public and private institutions to lead the coordinated regional strategy, and it was determined that the Wichita State University (WSU) College of Engineering (CoE) provided the best environment and leadership to foster the coordinated innovation ecosystem. This culminated in a draft business plan for the WIRED successor organization, the CIEE. In May 2010, the draft innovation center proposal was approved by the WIRED Leadership and submitted to WSU for further action. In October 2010, the Kansas Board of Regents approved the Center and the Center was initially staffed in February 2011.

Successor Organization: In response to the request for technical assistance, WSU established the CIEE to strengthen and develop the local manufacturing industries’ innovation competencies in manufacturing processes and product capabilities. The Center employs an interdisciplinary approach with collaborative partners to promote industry diversification, new industry formation, and process and product improvements within existing firms. Appendix A includes a list of the CIEE collaborative partners.
**Mission:** The goal of the Center for Innovation and Enterprise Engagement is to escalate the development and predominance of the south central Kansas advanced manufacturing cluster in the global economy.

- The Center engages students and faculty in providing technical assistance through contract projects, co-operative education experiences, internships, and senior and master’s level projects.
- Client companies are supported in continuing to advance their research and innovation efforts at a high level and to intensify the development of new products, processes and services, in order to meet the challenges of the global economy.
- The Center simplifies and streamlines faculty engagement logistics by providing a one stop access to Wichita State University (WSU) College of Engineering.
- The Center further opens the door to the vast intellectual resources of WSU and provides unparalleled access to our faculty and students as problem solvers and builds on the WSU’s reputation as a trusted industry partner engaging to tackle problems with passion and objectivity.
- The Center empowers rapid implementation of the R&D results in the form of market-oriented innovations.

A board of directors provides governance for the CIEE. Selection of board members is focused toward identifying senior executive candidates who are regional champions with significant social networks that can provide the CIEE with access and flexibility to implement growth strategies and guide the regional advanced manufacturing cluster development. Board members include 11 business and industry representatives, three WSU partners, two representatives each from elected officials, post-secondary education, workforce and economic development, and one representative from Kansas Department of Commerce, K-12 education, and an engineering professional organization. Appendix B includes a roster of the CIEE Board of Directors.

The four operational strategies include: a) convene business and industry roundtable, b) advocate and connect businesses with applied research and technical assistance, c) utilize regional expertise and resources, and d) facilitate skills and knowledge development. (See Figure 1)

**Jobs and Innovation Accelerator Challenge**

In late August 2011, WSU CIEE was one of 20 Jobs and Innovation Accelerator Challenge (JIAC) winners receiving a federal interagency grant for nearly $2 million to create more jobs by supporting advanced manufacturing innovators to get commercially viable processes and products into production faster.

Though evaluation of economic data and a series regional strategic planning, the CIEE identified
advanced manufacturing as the high-potential industry cluster. The WSU CIEE JIAC work plan includes three independent but integrated initiatives.

- **Innovation Accelerator**: Department of Commerce Economic Development Administration, ($849K for a two-year period)
  - Industry roundtable
  - Competitive faculty/Business Fellowships ($20K in Y1 and $20K in Y2)
  - Competitive Innovation Accelerator ($10K to $50K each), two preselected technologies, four competitively awarded technologies and three additional award pending for July 2012

- **Career Accelerator**: Department of Labor Employment and Training, ($1M for a four-year term)
  - BS Engineering Technology, Develop and Implement Articulation Agreements with Educational Partners
  - Bridge Program for First-Time Engineering Students
  - Scholarships for Continuing Engineering Students
  - Online Composites Course Development for Engineers

- **Enterprise Accelerator**: Small Business Administration, ($144K for a two-year term)
  - Engage historically underrepresented and excluded communities in support of identifying, planning and developing new business opportunities
Appendix A. Center for Innovation and Enterprise Engagement Collaborative Partners and Institutions

1. Wichita State University (WSU) College of Engineering (CoE)
2. National Institute of Aviation Research (NIAR)
3. Kansas Department of Commerce (KDOC)
4. Workforce Alliance of South Central Kansas (WA) and Kansas WorkforceONE (KSWFOne)
5. Center for Entrepreneurship (CFE)
6. Center for Economic Development and Business Research (CEDBR)
7. Kansas Small Business Development Center (KSBDC)
8. Center for Innovation in Biomaterials for Orthopaedic Research (CiBOR)
9. WSU academic departments
10. Center for Management Development (CMD)
11. Community and Technical Colleges (Butler, Cowley, Hutchinson, Pratt (Wichita eLearning Service Center), and Wichita Area Technical College)
12. Regional Economic Area Partnership (REAP)
13. Regional economic development partners
14. Greater Wichita Economic Development Coalition (GWEDC)
15. Pittsburg State University
16. Mid-America Manufacturing Technology Center (MAMTC)
17. Small Business Administration (SBA)
18. South Central Kansas Economic Development District (SCKEDD)
19. K-12 Programs
   a. Project Lead the Way (PLTW)
   b. Summer Camps
   c. Business Plan Competition, WSU Center for Entrepreneurship
   d. Youth Entrepreneurs of Kansas (YEK)
   e. Distributive Education Clubs of America (DECA)
   f. Science and Engineering Educational Development for Students (SEEDS)
20. Professional Associations
   a. Society of Women Engineers
   b. Engineering Foundation of Kansas
Appendix B. Center for Innovation and Enterprise Engagement Board of Directors as of April 10, 2012

1. Aviation Employer, 1,000+, Kip Schmidt, Technology Development Director, Spirit AeroSystems
2. Aviation Employer, 1,000+, Jim Krone, Director - Structural Integrity, Cessna Aircraft Company
3. *Aviation Supply Chain, Darrel Dugan, Director of Business Development, Burnham Composite Structures
4. *Aviation Supply Chain, Mike Helmer, President, Aircraft & Commercial Enterprises
5. Non-Aviation Advanced Manufacturing Firm, Richard Sullivan, President, CiBOR
6. Non-Aviation Advanced Manufacturing Firm, John Lovitt, Entrepreneur
7. *Non-Aviation Advanced Manufacturing Firm, Will Wesolowsky, Local CFO/Controller, AGCO Corporation (Co-Chair)
8. At Large – Business or Industry, Rick Willardson, Engineering Advisor, Dell Engineering Solutions
9. *At Large – Business or Industry, Phil Wyssenbach, President, Hillsboro Industries
10. At Large – Business or Industry, Andy Plyler, President and CEO, Galaxy Tool Corporation
11. Professional Organization, Barbara Davis, Past President, Society of Women Engineers
12. Financial/Investor, Vacant
13. Commerce, Sherry Gegen, Business Executive & Industry Liaison, Regional Director South Central KS Region, Kansas Department of Commerce
14. *Economic Development, Mickey Fornaro-Dean, Executive Director, Harvey County Economic Development
15. Economic Development, David Alfaro, Director, Butler County Economic Development
17. Post-Secondary Education, Anthony G. Kinkel, President, Wichita Area Technical College
18. Elected Official, Kristey Williams, REAP Chairperson, REAP
19. Elected Official, Dave Unruh, REAP EDC Chairperson, REAP
20. K-12, TBD, Assistant Director, Career, Standards & Assessment Services, Kansas Department of Education
21. *Wichita State University, Zulma Toro-Ramos, Dean, College of Engineering, WSU (Co-Chair)
22. Wichita State University, Tim Pett, Director, Center for Entrepreneurship, WSU
23. Wichita State University, John Tomblin, Executive Director, NIAR, WSU
24. *Workforce Investment Board LA IV, Keith Lawing, Executive Director, Workforce Alliance of South Central Kansas (Ex Officio)
25. Workforce Investment Board LA I, Robert Dalke, Executive Director, Kansas WorkforceONE (Ex Officio)