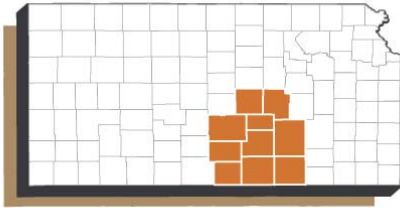


South Central Kansas



The South Central Kansas region is one of the largest centers of composite aircraft component design and fabrication. Companies such as Boeing, Cessna and Hawker-Beechcraft have utilized these materials in aircraft for over 25 years, and recent technological advances are increasing the use of advanced materials and polymers in commercial and general aviation manufacturing. The growth in composite structural aircraft is estimated to be 14 percent per year over the next 20 years.

While much of the demand for composites and advanced materials is driven by the aviation manufacturing cluster in South Central Kansas, these materials are being used in medical devices, machinery components, building materials and other commercial applications. South Central Kansas has an opportunity through this WIRED Initiative to become the global center for composite expertise.

The goal of the South Central Kansas WIRED Initiative is to accelerate economic growth and transformation in the region by fostering innovation and talent development critical to both the aircraft and healthcare industries. The South Central Kansas WIRED project will foster emerging growth and innovation in the areas of advanced materials and polymers by encouraging the alignment of investments in research and development.

The resources funded through WIRED will increase the use and transparency of career pathways supporting aircraft and healthcare to secondary students and adults in order to provide a nimble pipeline of credentialed, skilled workers to businesses in these and related cluster areas. In addition, entrepreneurship will be cultivated through the coordination of a single point of contact delivery system. WIRED will also provide opportunities for collaboration between and among education institutions, industries, economic development organizations and, the public workforce system.

In the summer of 2001, the City of Wichita was one of five cities that took part in the Clusters on Innovation Initiative conducted by the Council on Competitiveness. The final report revealed that the region needed a comprehensive workforce strategy that included a state-of-the-art workforce facility and programs. Subsequently, a targeted study in 2004 identified plastics and other advanced materials (such as composites) as industrial sectors in which Wichita already had a significant competitive advantage.

WSU spent more than \$20.6 on aerospace research in FY 2004, with about 70 percent of that total coming from Federal sources. The remainder of the total was split between state funding and the aircraft industry at both local and national level.



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The South Central Kansas WIRED Initiative proposal builds on this research and existing partnerships to create a vision supported by specific, innovative strategies for restructuring the regional economy. These goals are in line with DOD/NASA/FAA/Homeland Security plans for effective and rapid incorporation of new technologies into the aerospace fleet.

WIRED funds will be used to support the emerging composite industry as composite application dramatically accelerates in the aviation industry, and encourage migration of a new generation of composite technology to the healthcare industry and other markets. To maintain a competitive advantage and develop composite expertise in South Central Kansas, it is critical that the region expand workforce training from students to entry level workers and experienced engineers.

In developing a premiere workforce of skilled composite technicians who can serve a variety of industries, South Central Kansas can diversify its regional economy while maintaining its manufacturing base and providing for future growth and stability. Strategies to meet this goal include the following:

- Strategy 1: Coordinate and leverage the region's educational and workforce development resources to develop talent and encourage lifelong learning practices that will support sustainable, high-wage, high-skilled jobs to meet the changing demands of employers and the global economy.
- Strategy 2: Catalyze innovation and entrepreneurial talent through research and development in composite sciences to extend transformational technology into varied economic sectors
- Strategy 3: Establish the region as the Center of Excellence for this Emerging Global Cluster

WIRED funds will be used to facilitate the growth of the South Central Kansas economy through building a seamless education/training pipeline that produces a world-class workforce in composites and advanced materials; prepares and equips entrepreneurs with skills, tools and resources to commercialize processes for new technology and products, and establish an advanced materials research center and industrial park. The bedrock of the region's competitiveness is a well educated and skilled workforce. WIRED funds will provide tuition assistance for post-secondary and post-graduate education to accelerate and expand incumbent worker lifelong learning opportunities in newly developed advanced materials and composites curricula.

