



Workforce Innovation in Regional Economic Development

Metro Denver WIRED Partnership

Implementation Plan

February 1, 2008 to January 31, 2010



Metro Denver WIRED Implementation Plan

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1. Introduction

The Metro Denver Economy

Since the Metro Denver WIRED Initiative began in early 2006, the Metro Denver economy has continued to outpace the nation. The area had been hit hard after the post 9/11 high-tech fallout, but began to rebound in 2003, adding over 102,000 new jobs from 2003 to 2007. In 2007, the Corporation for Enterprise Development ranked the state No. 3 for creating new companies.

Metro Denver ended 2007 with an unemployment rate well below 2006. The region's unemployment rate averaged 3.9 percent for the year, down from 4.4 percent in 2006. Monthly data, however, reveal a slightly weaker labor market. At 4.4 percent, Metro Denver's December 2007 unemployment rate was up from 3.9 percent in December 2006.

More recently, despite a volatile stock market, continued weakness in the housing sector, and a slightly weaker labor market, Colorado is weathering the economic impacts better than its neighboring states, according to recent data compiled by the Metro Denver Economic Development Corporation (Metro Denver EDC) in its *Monthly Economic Summary* for February 2008. Patty Silverstein, Metro Denver EDC's economist, believes that, as the national economy softens in 2008, Metro Denver's economy will follow suit but will have a subtler slowdown. Silverstein forecasts that 21,800 jobs will be added in Metro Denver during 2008, a 1.6 percent growth rate. The strength of life sciences and aerospace companies – both WIRED industries – is helping keep demand for R&D and flex space relatively strong in Metro Denver.

The Metro Denver WIRED region is comprised of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer and Weld Counties. The region's economy has a heavy concentration of high-tech businesses, which is certainly an asset in a national economy increasingly driven by technology and innovation. The area's many business assets, however, will make for a subtler slowdown than may be reported elsewhere. A well-educated workforce, stabilizing housing market, and award-winning transportation infrastructure are building Metro Denver's reputation as one of America's top spots for business. The area's healthy population and many eco-friendly businesses are also drawing attention as the national focus on conservation and sustainability grows. For these and many other reasons, Metro Denver is frequently highlighted in the national media.

Metro Denver is the nation's second-best center for business, says a recent report by business website MarketWatch. The report ranks the nation's 50 largest metropolitan areas based on concentration of company headquarters, unemployment rate, population growth, and other criteria. Metro Denver placed second overall behind Minneapolis-St. Paul, and Metro Denver performed particularly well in the small business rankings.

The Metro Denver WIRED Initiative has been assisting businesses in the target industry clusters – aerospace, bioscience, energy and information technology – meet current workforce needs as it builds the capacity of the region's educational institutions to train workers for occupations in new and emerging industries. In the next two years, even as we continue to work on training and capacity-building activities, the WIRED Initiative will intensify activities around entrepreneurship and technology transfer to help grow our clusters. Additionally, WIRED staff and partners will

focus on work that will lead to sustainability of the WIRED framework through transformation into a permanent structure for regional talent development.

The Metro Denver WIRED Industries

Aerospace Industry

The nine-county Metro Denver WIRED region employs 20,500 private workers in the aerospace industry, representing 77 percent of all aerospace workers in Colorado. The region has almost 90 aerospace companies (71 percent of the state's total aerospace cluster companies). About 44 percent of these employ fewer than 10 people, while 16 percent employ more than 250 workers.

Approximately 58 percent of the region's aerospace companies are involved in manufacturing optical instruments and lenses (33 percent) or search and navigation equipment (25 percent). Most aerospace employees are involved in manufacturing search and navigation equipment (80 percent) or guided missiles and space vehicles (12 percent).

The 2006 average annual salary for an aerospace worker in Colorado was \$98,140 compared to the national average of \$81,400. Given this average salary, total payroll in the aerospace industry cluster in the region reached an estimated \$1.8 billion in 2006.

Recent developments in the aerospace cluster include the formation of the United Launch Alliance (ULA), a new company born when the rocketry divisions of Lockheed Martin and Boeing Corporation merged. The ULA began operations in December 2006 and currently employs about 1,600 workers in the Metro Denver area. Most of the ULA's engineering and administrative activity is concentrated locally at Lockheed Martin's Space Systems unit, and most assembly and integration operations are concentrated at a Boeing facility in Alabama. Lockheed Martin has also begun work on an \$8.2 billion NASA contract for the Orion Spacecraft. Almost 500 of Lockheed Martin's Colorado employees are currently working on the project, and an additional 600 Orion-related jobs could be added in Colorado by 2009.

The Metro Denver WIRED region now ranks second out of the 50 largest metro areas for private aerospace employment concentration in 2007 (i.e. excluding military employment), and ranks first out of the 50 largest metro areas in absolute employment.

Aerospace workforce needs and issues

WIRED research has highlighted several workforce issues identified by local aerospace companies. Companies report a need for a larger, more diverse, talent pool equipped with good communication, leadership, team-working and business skills. Employee retention issues are often exacerbated by the lack of knowledge retention and transfer capabilities within organizations. Local aerospace companies have also communicated that a more rigorous STEM skills education is required for the K-12 population to meet the industry's future workforce needs, and more needs to be done to develop and retain student interest in STEM. Homegrown STEM talent is particularly important to the aerospace industry due to the citizenship requirement for security clearances.

Engineers represent the industry's most difficult-to-fill occupation category, with aerospace, electronics, system, software and mechanical engineers identified as most in-demand for the region.

Also in-demand (but to a lesser extent) are occupations related to business functions, manufacturing and production, and analysis. Photogrammetry and optics lead the region's most in-demand niche skills. Local aerospace companies report 6-14 years experience is the most frequently required experience level for new hires in in-demand occupations.

Bioscience

It has been a difficult, but overall good year for Colorado's Bioscience industry. While bioscience is a high-risk, highly regulated industry, and some companies in the WIRED region laid off workers, the net growth of companies and jobs in the cluster remains positive. The most recent Metro Denver EDC Bioscience Industry Cluster Profile for the nine-county WIRED region reported more than 470 companies employing approximately 15,550 bioscience workers. The region was ranked 23rd of the 50 largest metro areas for pharmaceutical and biotechnology employment concentration in 2007 and seventh out of the 50 largest metro areas for medical device and instruments employment concentration in 2007.

A surge in startup activity expanded the Colorado medical device industry by at least 28 new companies along the Front Range in the past year. Relocations and growth of existing business have been steady. Overall, the region has experienced positive growth in the industry and in jobs, with more growth among experienced high-skilled positions rather than among entry-level positions (many of which fill without much public notice).

Energy

The nine-county Metro Denver WIRED region's energy cluster is a dynamic and diverse group of industries that employs more than 28,500 workers, almost 61 percent of the over 47,000 workers across the state. The subsectors within the energy cluster include extractive and renewable energy and energy research.

Extractive energy companies include oil and natural gas exploration and production, coal mining, and electric utilities that depend on coal or natural gas to provide power to the grid. There were approximately 1,170 extractive companies in the nine-county region in 2007. More than 75 percent of these companies employ fewer than 10 people, and about 1 percent employ 250 or more. Extractive energy employment increased 2.5 percent between 2002 and 2007, compared to an 8.9 percent employment decline reported at the national level.

Renewable energy and energy research companies produce energy using wind, solar, biomass, fuel cells, and hydro resources. The nine-county WIRED region ranks 7th out of the 50 largest metropolitan areas in renewable energy and energy research employment in 2007, with direct employment of approximately 13,940 workers. Nearly 91 percent of Colorado's renewable energy and energy research employment is located in the nine-county region.

Several major events have taken place in the last few months in the energy industry that will reinforce the need to continue to train a workforce for the energy industry:

- Houston-based [ConocoPhillips](#), the country's third-largest energy company, announced plans on February 20, 2008, to establish a new Global Technology and Corporate Learning Center at the former Storage Technology campus in Louisville, CO. The company will raze and rebuild the 432-acre campus to make way for a global technology center that will be the
-

hub for its research and development in making liquid fuels from renewable sources. ConocoPhillips will also create a worldwide learning center at the site where it will bring thousands of employees each year to train on new energy technology applications. The new campus will be operational by 2012. Local economic development groups feel the company will make a significant investment in human capital at the site as well. "We don't know how many will be employed, but given the size of the land, this could be the largest economic development project in the history of the state and potentially employ several thousand employees," explained Tom Clark, executive vice president of the Metro Denver Economic Development Corporation.

- Ascent Solar Technologies, Inc. (NASDAQ:ASTI), a developer of state-of-the-art, thinfilm photovoltaic modules, announced in February 2008 the purchase of a large-scale manufacturing facility expected to house the company's new world headquarters and planned commercial manufacturing operations. In addition to housing the company's headquarters, the facility will provide manufacturing space for the first of several 25MW solar module production lines as the company embarks on a plan to expand its worldwide production capacity to 100MW by 2011. The expansion is expected to create approximately 300 manufacturing jobs. The first 25MW production line is planned for completion by year-end 2009.
- In early February 2008, the Metro Denver EDC and the Colorado Office of Economic Development and International Trade hosted a delegation of Spanish energy companies visiting Metro Denver to learn about investment opportunities in the state's booming alternative energy industry. Spanish companies have invested \$24 billion in the U.S., including \$7 billion in the renewable energy industry. Spain issued a moratorium on building along its coastlines in mid-January this year, leading companies to seek land and investment opportunities elsewhere. In fact, the Spanish delegation chose to visit only one other state after a stop in Washington, D.C. – Colorado. "These companies narrow in on Metro Denver because of its close proximity to DIA as well as the opportunity for companies to partner with world-renowned research institutions like NREL, Mines, CU, CSU, and DU," stated Laura Brandt, manager of economic development for the Metro Denver EDC.
- Renewable Energy Systems Americas, Inc. (RES-Americas) announced it will move its headquarters from Austin, Texas to Broomfield, bringing 140 jobs to the area. The company, founded in 1997, is a national leader in renewable wind energy and is actively working to develop 12 percent of the installed wind power capacity nationwide. Of the 140 jobs, 70 will be relocated from the company's former Texas-based headquarters. The other 70 jobs are planned to be filled by local hires, according to RES-Americas. Currently, the company employs 160 people in the US and Canada.

Information Technology

"Colorado has the third highest concentration of high-tech workers in the country," according to the Cyberstates 2007 report by the American Electronics Association. The information technology industry plays a significant role in all other sectors of the economy, ranging from virus protection and other security programs for computers to the study of genetics in bioscience laboratories. Using a broad definition, the Colorado Software and Internet Association reports more than 100,000 IT

workers in the state.

In a more focused classification, the region's information technology – the software industry – employs 45,900 people and includes software publishers, custom computer programming, data processing/hosting, Internet service providers, and computer systems design. The nine-county WIRED region reported a 1.4% one year growth (2006 to 2007) in the software industry compared to a 0.3% growth in the rest of the nation.

Boulder is the hub of the industry, employing 28 percent of all the region's software workers. The city's largest employer – IBM Corporation – has over 5,000 people at its Boulder campus. In fact, IBM considers the area such a strategic location that it is expanding its presence and investment with a new \$86 million, 80,000-square-foot "green" data center. A strong entrepreneurial atmosphere is evident with the state ranking third in creating new companies and fourth for monies raised via the Small Business Innovation Research (SBIR) program.”

STEM Partnerships

All of the WIRED industries require strong STEM skills, and WIRED has forged a partnership with the Governor's Office of Policy Initiatives (OPI) to help strengthen STEM skills for all students in Colorado. WIRED provided funding of \$100,000 to leverage a \$500,000 STEM grant that the Governor's Office received from the National Governors' Association. OPI will communicate STEM skills development programs to industry sectors covered by the WIRED Initiative, including high growth industries, the public workforce system, K-12 educational institutions and higher education, etc. It will collaborate with WIRED partners to connect the Governor's P-20 Policy Council's education policy goals to economic development organizations and the goals of the Colorado Department of Labor and Employment. OPI will work to communicate the goals and objectives of STEM policies throughout the nine-county WIRED region through at least two statewide meetings, coordinated with other statewide and national efforts, at which the WIRED goals are introduced. Subcontractors, the Center for Education Policy Analysis, School of Public Affairs, University of Colorado at Denver (CEPA), and the Colorado Math, Science, Technology and Engineering Education Coalition (COMSTEC) will develop toolkits for educating local leaders and policymakers on the importance of STEM skills and high expectations for STEM learning for community colleges and the public workforce system and disseminate these toolkits at community gatherings.

Addressing Needs through WIRED

The WIRED Initiative, designed to support Metro Denver EDC's growth industry clusters and to build a pipeline of workers for high-demand occupations, has received widespread support from public officials, and from leaders in economic development, workforce and education.

Through two separate Request for Proposal (RFP) processes, Metro Denver has funded 20 exemplary programs to build capacity of local educational institutions to address the needs of our WIRED industries and to train and place individuals in employment in high-demand occupations. We have funded the following programs during the first two years of WIRED:

JumpStart and Innovation I Grant Awards

Aerospace

Community College of Denver (CCD) - *JumpStart into Aerospace – (JumpStart)*

Leveraged an existing NASA-funded degree program in Aerospace Systems Engineering Technology that targeted underserved populations. The WIRED program begins with students at North High School. A high-poverty school in the Denver Public Schools and enrolls them in a pre-aerospace program at CCD, providing remediation and training to encourage students to go to the Community College of Denver and Metro State College to major in aerospace-related disciplines.

SpaceDev – (Innovation)

Space Dev program has three components: “Straight-to-Space will provide high school graduates and dislocated workers with career and technical training for aerospace companies; administers a “Super Co-Op” to engage University of Colorado’s engineering students with study, paid industry experience and pathways to careers in aerospace; an Entrepreneurial Space Company Incubator will place college students in internships with start-up companies to learn entrepreneurial skills.

Bioscience

Community College of Aurora - *Preparing High School Faculty and Staff in Emerging Technologies – (JumpStart)*

Training high school teachers in bioscience instruction, using traveling science equipment kits and providing bioscience careers info to teachers, students and counselors.

Energy

Adams County Workforce and Business Center (ACWBC) – (Innovation)

Recruiting and training 175 adults as equipment operators, drivers or materials handlers for energy companies through a partnership with Front Range Community College (FRCC), and the Center for Transportation Safety (CTS).

The Council for Adult and Experiential Learning (CAEL) - *Education Today, Energy Tomorrow – (JumpStart)*

Partnering with Xcel Energy and several local high schools to provide an on-line education program for high school students to create a pipeline into high-growth careers at local energy companies.

Front Range Community College (FRCC) – (Innovation)

An Energy Basic Training program that includes training for 140 students in Basic Math Skills, Understanding Basic Statistics and Measurements, Introduction to Process Technology, Working in Teams and Communication Skills in the Workplace. Curriculum designed with assistance from major energy companies such as Vestas, a European company that recently moved to the area and which is manufacturing wind blades. The company (which will have an immediate need to fill 600 jobs) has agreed to interview program graduates and to continue to work with Front Range to strengthen the program.

The Goodwill Industries of Denver – (Innovation)

Goodwill is working with several energy companies and providing 60 students in two local high schools with energy careers classes, paid apprenticeships and entry-level positions with energy businesses as well as an “Energy Career Summer Camp.”

iCAST (International Center for Appropriate and Sustainable Technology) - (Innovation)

Will conduct Energy Efficiency Training for 250 unemployed, underemployed and incumbent workers referred by workforce centers in the WIRED region that will include energy auditing for residential, commercial and industrial buildings; solar PV and solar thermal installation; insulation and air sealing installation and other energy savings devices installation and HVAC installation. Will create and post 3 online course modules from the Energy Efficiency curricula. Presented in partnership with The Colorado Energy Science Center (CESC) and E-Star Colorado.

Red Rocks Community College - *Building and Sustaining a Pipeline of Process and Maintenance Technicians* – (JumpStart)

Trains process and maintenance technicians for the energy sector and begins the program at several local high schools where students receive college credit into the Process Technology program taught at Red Rocks.

Turnabout, Inc. – (Innovation)

Will provide 70 ex-offenders with training on Solar Panel Installation, Wind Power Installation and Equipment, OSHA certification, Industrial First Aid/C.P.R. certification, Commercial Drivers License (A and B) for the energy sector.

The Employment Services of Weld County – (Innovation)

Will provide training and placement to 100 youth and adults through the Multi Industry Systems Technician (MIST), in partnership with Aims Community College, designed to remediate and develop skills for entry and mid-level employment in the Energy industry.

Information Technology

Arapahoe/Douglas Works! – (Innovation)

Expert Technician Academy (ETA) program for youth and adults to learn technical skills for all four industries. Will train 150 adults, 75 youth and 50 incumbent workers in certifications for IT industry, including: A+, Net+, Oracle and Electronics.

Arts Street’s “Put Me On the Map” – (Innovation)

IT training for 115 youth and young adults in GIS mapping, digital animation, digital video production, interactive communication media, visual informatics and web site content development.

Denver School of Science and Technology - *11th Grade Internship Program* – (JumpStart)

Providing internships and relationships with companies in aerospace, bioscience, energy and IT/software for this high school that is 60% minority, 40% low-income and just announced that all of its seniors have been accepted into college. WIRED has also provided assistance to the school with connections to the IT industry.

Regis University – *Business and IT Management Degree (targeting bilingual students)* (JumpStart)

Developed a new major which combines business management and IT skills; targets underserved populations. One of the major findings of our business survey was a need for individuals who had both technical and business skills. This new major strengthens the capacity of a local college to provide graduates with these skills for regional businesses.

Aerospace & Bioscience

University of Denver - *Educating Colorado's Aerospace & Bioscience Workforce* – (JumpStart)

Making of an Engineer summer camp using the theme of *Engineering in Extreme Sports* in aerospace engineering and bioengineering.

Aerospace, Bioscience & IT

University of Denver – (Innovation)

Training and placing 75 unemployed and underemployed clients into higher paying jobs in IT, Aerospace and Bioscience industries.

All Industries

Jobs for America's Graduates (JAG) – (JumpStart)

Preparing at-risk high school students for careers in the aerospace, bioscience, energy and information technology industries through certificate programs in Mainframe Administration; Good Laboratory Practices and Good Manufacturing Practices; Mechatronics.

Science, Technology, Engineering & Math (STEM)

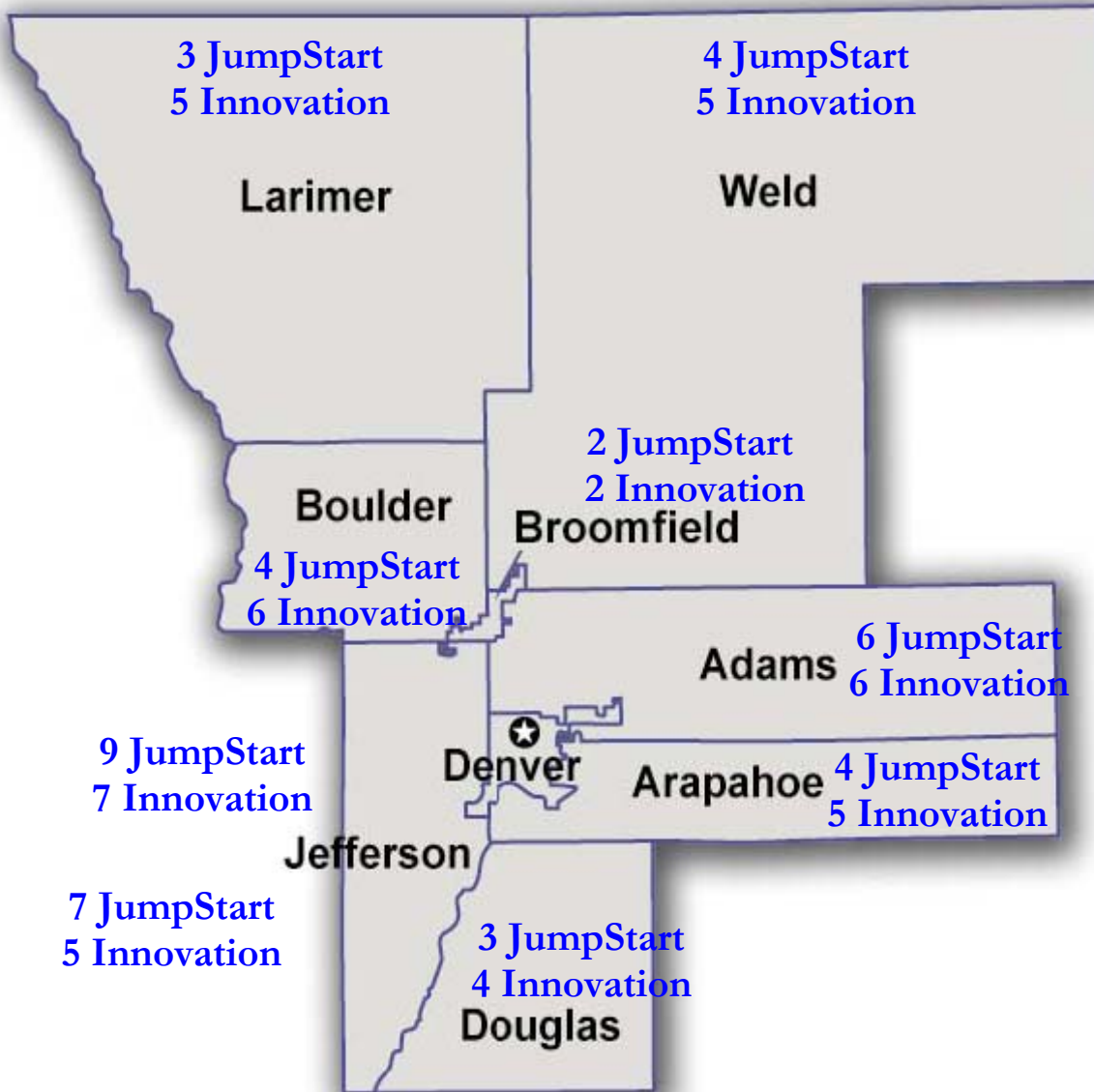
Colorado Minority Engineering Assoc. ~ Mathematics Engineering Science Achievement (CMEA~MESA) – (JumpStart)

Pre-collegiate and college-prep STEM competencies and career pathway mentoring programs for low-income, women and minorities.

Thompson School District - *Sustaining Transformation through STEM* – (JumpStart)

Increasing the number of graduates pursuing STEM careers through post-secondary certification programs, associate degrees, and four-year university/college degrees. Providing Project-Lead-the-Way curriculum at several high schools in the district.

The following map of the Metro Denver WIRED region shows how these grants were distributed across the region.



2. Goals of the Metro Denver Regional WIRED Initiative

The goals of the Metro Denver WIRED Initiative, remain as originally envisioned:

Goal 1: For the benefit of Colorado's future, *develop a home-grown skilled workforce* for the fastest-growing industries -- aerospace, bioscience, information technology and energy – so that our regional companies can remain competitive in the global economy.

Goal 2: Be the *best region in the country in science, technology, engineering and math (STEM) education*, supported by full skill-set of competencies and masteries. Metro Denver will be the “go to” region when companies are deciding to relocate or expand because our workforce has the best STEM skills.

Goal 3: Provide an *entrepreneurial climate for business creation and expansion* for companies in targeted industries.

Goal 4: Become the region where the *minimum acceptable educational standard for all becomes a post-secondary certificate or an Associates Degree*.

Goal 5: Create a regional system that *seamlessly integrates workforce, education, and economic development programs to effectively meet the standards of individuals and businesses*.

Activities in Support of Metro Denver's WIRED Goals

The Metro Denver WIRED Initiative has formed four *Solutions Teams* to take action on recommendations made by the Leadership Council at its retreat. Each of the Solutions Teams will be cross-disciplinary with representation from the four WIRED industries (aerospace, bioscience, energy, and IT/software), economic development, K-12 and higher education, and the public workforce system. In addition, each Team will be supported by a convener and led by two co-chairs. The recently restructured Leadership Council will oversee the work of the Solutions Teams (please see Section 3. WIRED Governance, for information on the Leadership Council's roles and responsibilities). Solutions Teams will meet on a monthly basis for up to five months, commencing in May of 2008.

The following description of the Solutions Teams and matrix detail our key activities in the next year in support of WIRED goals.

Solutions Teams

During the second quarter of 2008, the following four Solutions Teams will be formed. Each of these teams will be cross-disciplinary with representation from industry, education and the public workforce system. The Solutions Teams will be charged with translating recommendations (developed during the first two years of the WIRED grant) into action.

Connecting to Industry.

- Develop ways in which information and access to internships, externships, apprenticeships and similar work-based experiences can be accessed by students, teachers, incumbent workers, out-of-school-youth, etc.
 - Develop policies to provide incentives to:
-

- Higher education institutions for retaining graduates in Colorado,
- Support collaboration between academics and industry, and
- Encourage individuals from industry to go into academia.
- Foster the creation of long-term partnerships among industry, education and the public workforce system.
- Promote connections among entrepreneurs in the targeted industry clusters.

Workforce 2010.

- Begin process of identifying entities/partnerships/networks to sustain WIRED work after grant ends.
- Identify and leverage existing and/or secure new source/s of funding to provide sustainable support to this successor entity.
- Address any policy issues impacting target industries, education, and/or workforce, and identify policy initiatives and appropriate parties for moving initiatives forward.

Growing Our Own.

- Stimulate K-12 and higher education students' engagement in STEM, as well as business skills (e.g. critical thinking, teamwork, presentation).
- Support initiatives that promote a more rigorous K-12 STEM education.
- Promote the development or replication of program/s that will increase the number of students who graduate from high school.
- Promote partnerships between the public workforce system's youth programs and high schools.
- Foster development of Career and Technical Education (CTE) centers.
- Address training needs of out-of-school youth.
- Work with Small Business Development Centers on Youth Biz initiative to encourage K-12 students to explore small business ownership in the targeted industries.
- Increase use and replication of existing models that support multiple career pathways to employment in target industries.

Optimizing Today's Workforce.

- Identify and develop programs – or partner with existing programs, special projects and grants – to provide employment and training resources for untapped sources of talent (e.g. ex-military, “Boomers,” incumbent workers, unemployed/underemployed workers, ex-offenders, underrepresented populations, etc.).
- Create recruitment programs to attract these untapped sources of talent to targeted industries.
- Increase target industries' use of region's Workforce Development system.
- Increase use and replication of existing models that support multiple career pathways to employment in target industries.

Key Strategies	Activities	Responsible Parties	Timeframes/ Milestones	Resources Needed	Desired Outcomes Metrics
<p>Develop strong, long-term relationships among industry, education and the public workforce system.</p>	<p>Develop ways in which information and access to internships, externships, apprenticeships and similar work-based experiences can be accessed by students, teachers, incumbent workers, out-of-school youth, etc.</p> <p>Develop policies to provide incentives to:</p> <ul style="list-style-type: none"> ▪ Higher education institutions for retaining graduates in Colorado, ▪ Support collaboration between academics and industry, and ▪ Encourage individuals from industry to go into academia. <p>Foster the creation of long-term partnerships between industry, education and the public workforce system.</p> <p>Promote policies and practices that support efficient and productive technology transfer between higher education, targeted industry clusters, and the private sector.</p> <p>Strengthen WIRED networks by growing the existing network; guiding emergence of new networks; identifying networks with potential influence and working to increase their connections to the existing WIRED network; and generating dialogue about the power of networking in the WIRED region.</p>	<p>Cross-disciplinary work group, or Solutions Team, made up of representatives from industry, education, and the public workforce system. Reports to the Leadership Council. Supported by WIRED staff.</p>	<p>Work begins May 2008 via Connecting to Industry Solution Team, and continues through summer 2008.</p>		<p>These relationships will continue to be built and strengthened through the entity to be identified in the Metro Denver 2010 Solutions Team.</p>
<p>Fill immediate workforce needs through recruitment, training and placement of untapped sources of talent (e.g. ex-military, "Boomer," incumbent workers, unemployed/ underemployed workers, ex-offenders, underrepresented populations, etc.</p>	<p>Identify and develop programs – or partner with existing programs, special projects and grants – to provide employment and training resources for untapped sources of talent.</p> <p>Create recruitment programs to attract these untapped sources of talent to targeted industries.</p>	<p>Cross-disciplinary work group, or Solutions Team, made up of representatives from industry, education, and the public workforce system. Reports to the Leadership Council. Supported by WIRED staff.</p>	<p>Work begins May 2008 via Optimizing Today's Workforce Solution Team, and continues through summer 2008.</p>		<p>Systems created and maintained to find and recruit untapped sources of talent.</p>

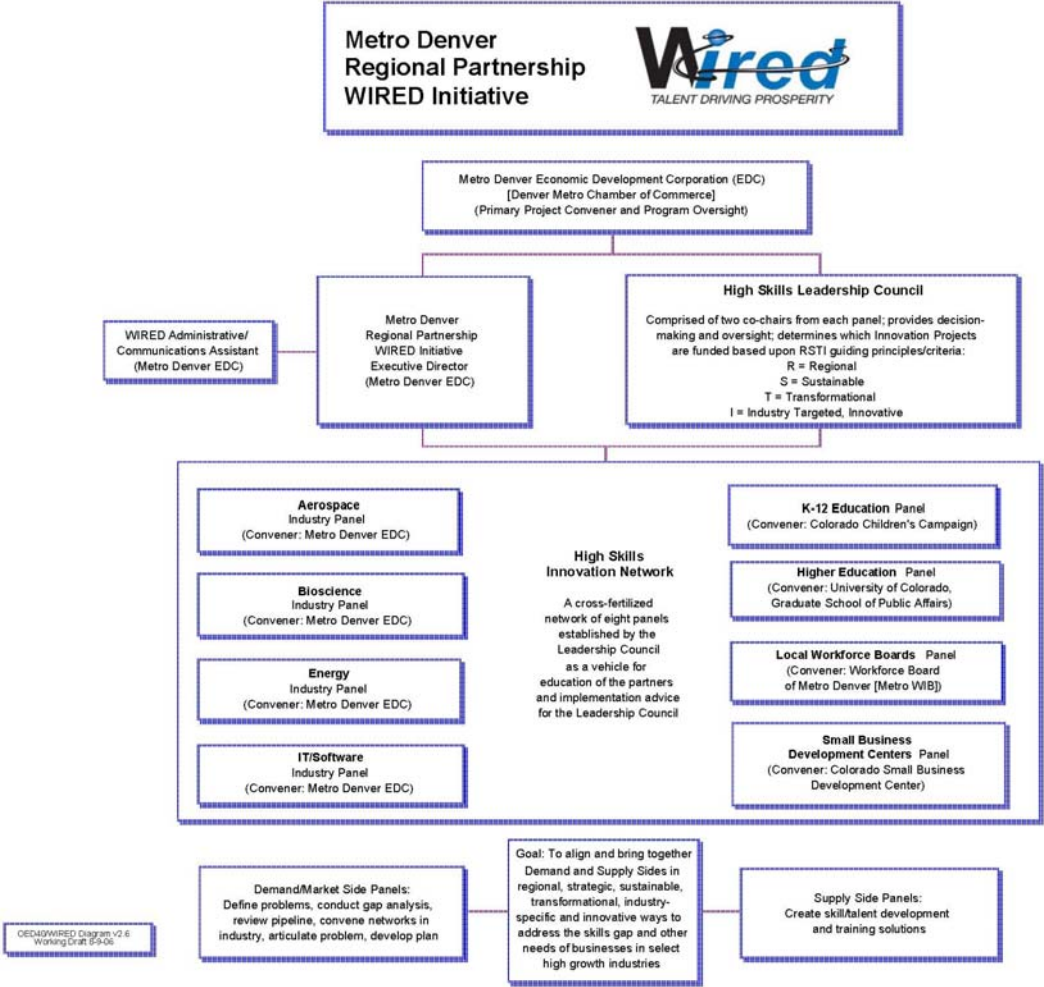
Key Strategies	Activities	Responsible Parties	Timeframes/ Milestones	Resources Needed	Desired Outcomes Metrics
<p>Fill immediate workforce needs through recruitment, training and placement of untapped sources of talent (e.g. ex-military, "Boomer," incumbent workers, unemployed/ underemployed workers, ex-offenders, underrepresented populations, etc. Continued.</p>	<p>Increase target industries' use of region's public workforce system.</p> <p>Increase use and replication of existing models that support multiple career pathways to employment in target industries.</p>				
<p>Address long-term industry demand for a skilled workforce through engagement of students in the K-12 and higher education pipelines.</p>	<p>Stimulate K-12 and higher education students' engagement in STEM, as well as business skills (e.g. critical thinking, teamwork, presentations).</p> <p>Support initiatives that promote a more rigorous K-12 STEM education.</p> <p>Promote the development or replication of programs that will increase the number of students who graduate from high school.</p> <p>Promote partnerships between the public workforce system's youth programs and high schools.</p> <p>Foster development of Career and Technical Education (CTE) centers.</p> <p>Address training needs of out-of-school youth.</p> <p>Work with Small Business Development Centers on Youth Biz initiative to encourage K-12 students to explore small business ownership in the targeted industries.</p> <p>Increase use and replication of existing models that support multiple career pathways to employment in target industries.</p>	<p>Cross-disciplinary work group, or Solutions Team, made up of representatives from industry, education, and the public workforce system. Reports to the Leadership Council. Supported by WIRED staff.</p>	<p>Work begins May 2008 via Growing Our Own Solution Team, and continues through summer 2008.</p>		<p>Increased engagement in STEM studies, increased interest in careers in four targeted industries.</p>

Key Strategies	Activities	Responsible Parties	Timeframes/ Milestones	Resources Needed	Desired Outcomes Metrics
<p>Ensure that the mission and objectives of the Metro Denver WIRED Initiative have long-term sustainability after the end of the grant.</p>	<p>Begin process of identifying entities/ partnerships/networks to sustain WIRED work after the grant ends.</p> <p>Identify and leverage existing and/or secure new source/s of funding to provide sustainable support to this successor entity.</p> <p>Address any policy issues impacting target industries, education, and/or workforce, and identify policy initiatives and appropriate parties for moving initiatives forward.</p>	<p>Cross-disciplinary work group, or Solutions Team, made up of representatives from industry, education, and the public workforce system. Reports to the Leadership Council. Supported by WIRED staff.</p>	<p>Work begins May 2008 via Metro Denver 2010 Solution Team, and continues through summer 2008.</p>		<p>A regional, cross-disciplinary organization takes the mission of WIRED forward beyond the end of the grant.</p>

3. WIRED Governance

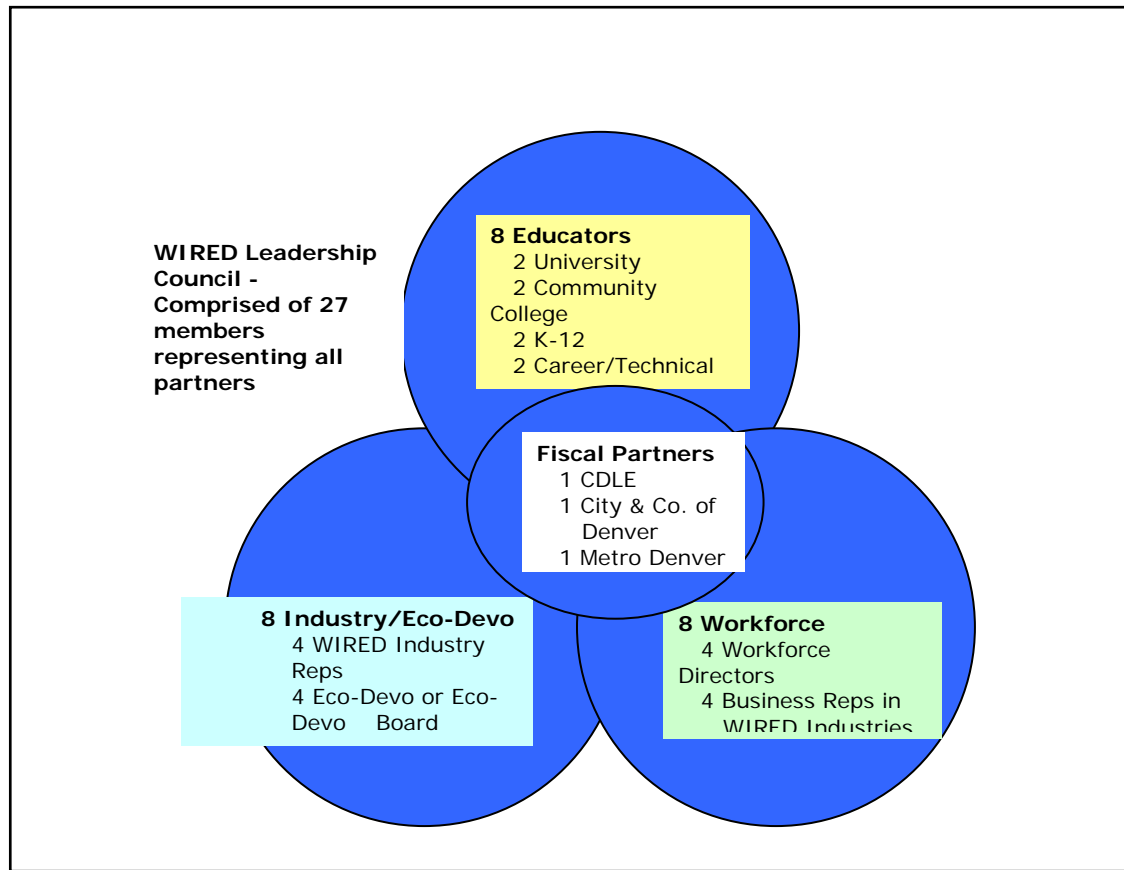
Wired Organizational Structure

Our WIRED structure has evolved in the last year. During the first half of the Initiative, as we conducted our research into the needs of businesses in our clusters, it was important to have industry-specific panels where industry representatives were comfortable enough to discuss workforce needs and provide their perspective on needed skills. Therefore, the Initiative was structured as follows:



As WIRED has evolved, and as the research and analysis phase of the Initiative has been completed, a different structure is necessary moving forward. Therefore, the following structure has been designed for the last half of the Initiative:

Metro Denver WIRED Structure 2008



Solutions Team: Connecting to Industry

Remit: Build strong, long-term connections among industry, education, and the public workforce system

Solutions Team: Growing Our Own

Remit: Stimulate K-12 and higher education students' engagement in STEM and business skills, and enhance their understanding of career opportunities in WIRE industries.

Solutions Team: Optimizing Today's Workforce

Remit: ID/create programs to recruit, train, and place untapped sources of talent - ex-military, "Boomers," incumbent workers, unemployed/ workers, ex-offenders, etc.

Solutions Team: Metro Denver 2010

Remit: Begin process of identifying entities/partnerships/net works to sustain WIRE work after grant ends.

Roles and Responsibilities of the Leadership Council

The recently restructured WIRED Leadership Council will oversee the WIRED grant through January 31, 2010. With an eye focused on sustainability of the WIRED concept, WIRED staff members have begun a dialogue with staff and members of the Workforce Board of Metro Denver, who are interested in adopting the Leadership Council structure as a permanent “Council for Regional Talent Development,” at the end of the WIRED grant. The Workforce Board of Metro Denver would become the driving force behind this Council, providing leadership and staff support

The Council’s specific responsibilities through January of 2010 will include:

- **Oversight.** The Leadership Council will have input on WIRED activities through the end of the grant, including the work of the Solutions Teams (e.g. proposed activities and expenditures).
- **Focus on Sustainability of WIRED’s Mission.** The Leadership Council will be responsible for developing a sustainability plan and forming partnerships that will implement the plan so that the WIRED’s work will continue after the grant ends.
- **Focus on Transformation.** The Leadership Council will define the transformation of workforce delivery systems, taking into consideration industries’ needs for a skilled workforce and the capacity of the region’s education and public workforce systems. Specifically, the Council will be responsible for defining what transformation entails, and strengthening partnerships among industry, K-12 and higher education institutions, and the public workforce system.
- **Work Toward Becoming a Permanent Structure for Regional Talent Development.** Leadership Council members will commit to participating in quarterly meetings through the end of January 2010, when the original WIRED grant ends. In addition, the Leadership Council will determine how it will transition to a permanent structure (e.g. future roles and responsibilities of the Council, length of members’ tenure, rotation of members, etc.).

Quarterly Meetings

The Leadership Council will meet on a quarterly basis for the remaining 18 months of the WIRED grant, commencing on Friday, May 16, 2008, from 11:00 a.m. to 1:00 p.m. Quarterly meetings will be held on the second Friday of the month as follows:

May 16, 2008

August 8, 2008

November 14, 2008

February 13, 2009

May 8, 2009

August 14, 2009

November 13, 2009

Charter

The Metro Denver WIRED Initiative is an effort to ensure that the region remains competitive in a global economy through development of local talent, promotion of an entrepreneurial climate, streamlining of delivery systems and creation of sustainable partnerships.

Organization and Composition

WIRED funds continue to flow from the U.S. Department of Labor to the CDLE, which provides technical assistance and monitors implementation of the Initiative. CDLE is under contract with the Office of Economic Development, City and County of Denver, the fiscal agent for the grant. Because programs under the Initiative are being administered by the Metro Denver EDC, the City has subcontracted with Metro Denver EDC to run all programs. The City subcontracted with the Workforce Board of Metro Denver to convene the Workforce Panel. A recent adjustment designed to streamline programs administration has been to transfer to CDLE all of the programs in which a Workforce Investment Board is the fiscal agent. The State Attorney approved the request by CDLE to add WIRED grantees, whose fiscal agent is a Workforce Region, to CDLE's umbrella Grant Agreement. As a result of this, CDLE will contract, monitor and provide technical assistance for these grants.

4. Operations

Management

Denver's Office of Economic Development is the fiscal agent for the WIRED grant and contracts the administration of programs under the WIRED Initiative to the Metro Denver EDC. Program staff, consisting of an Executive Director, four Industry Specialists, an Accounting Specialist and an Executive Assistant, are housed at the Metro Denver EDC.

WIRED also uses part-time Contracts Administrators and may contract with a part-time Communications Coordinator. The Executive Director of the Initiative reports to the Vice President for Economic Development for the Metro Denver EDC (Holli Baumunk) and to the Executive Vice-President of Metro Denver EDC (Tom Clark), both of whom play key roles by providing leadership and direction to Initiative staff. Janet Fritz, Director of Marketing and Technology for the Metro Denver EDC, has also been involved in developing the Initiative's Communications Plan and will consult on its implementation.

Operating Principles

The WIRED Initiative is about partners working together to support the regional economy; working across political boundaries and jurisdictions to develop a home-grown skilled workforce that can benefit from the best jobs that the economy is producing and that can help regional businesses compete in a global economy. It is also about changing the way we do business so that our delivery systems will evolve into sustainable partnerships that can continue to produce a skilled workforce much beyond the four-year WIRED grant period. Our guiding principles remain as follows:

Guiding Principles for Programs Funded under WIRED

Regional in scope: Highest consideration will be given to projects that transcend political or artificial boundaries in favor of regional economic development. WIRED funding will favor projects that cross county lines, school district lines, community college and workforce region boundaries and that can show impact to the regional economy.

Sustainable: Preference will be given to activities that show potential for sustainability beyond the four-year period of the WIRED grant.

Transformational: WIRED programs and activities funded through the grant will create regional partnerships and networks that have the potential of transforming delivery systems.

Industry-targeted: Projects funded under the Initiative must meet needs of industry. In the case of programs at the K-12 or community college level, projects can also provide STEM skills that will allow students to move into careers in the selected industry clusters.

Driven by partnerships: Preference will be given to projects that include many active partners, such as (but not limited to): cluster businesses, workforce regions, school districts, community colleges, universities, economic development offices, etc.

Replicable: Successful projects should be replicable to other parts of the region and/or the state.

Integrated into local economy and the recipient organization. Projects and activities funded under the Metro Denver WIRED should correspond to activities already under place by the applicant organization or to where the organization is headed

Leveraged: WIRED will give preference to projects and activities that are leveraged with other funds, preferably industry and foundation funds.

Innovative: Highest consideration will be given to applications that show understanding of the role of innovation in regional economic development.

Conflict of interest issues

Although we encourage applications by individuals representing organizations that are part of the Leadership Council and/or Solutions Teams, any member who is also an applicant can neither sit on the “reviewer” group nor vote on any proposal.

Next Steps under WIRED:

Structure: Convene the restructured Leadership Council and Solutions Teams. Begin discussions of a permanent structure to carry on the WIRED concept beyond the grant period. Continue transformational discussions with the public workforce system.

Research: Conduct polling of youth and parents on careers; conduct polling of community college students and workforce center customers on careers.

Communications: Review Communication Plan and decide on a communication strategy for the remaining grant period and beyond; proactively communicate the WIRED message and disseminate information on best practices in the region and beyond.

Partnerships: Work with NGA STEM Grant leadership on achieving WIRED STEM goals; develop written plan for a “call program” for businesses in the cluster.

Entrepreneurship activities: Analyze small business survey and release survey results; create curriculum for industry clusters and tech transfer outreach efforts; work with ETA and the Department of Commerce on pilot to accelerate technology transfer.

Capacity building activities. Add curriculum to e-Colorado as it becomes available from the JumpStart and Innovation Grant programs; explore feasibility of uploading curriculum into Curriki for sharing with other WIRED regions.

Access: Work with Colorado WIN partners to ensure that jobseekers with disabilities are included in the homegrown workforce and viewed as helping Colorado meet their goals.

WIRED Solutions Teams Categories of Activity/Investment

WIRED Solutions Teams' activities will differ significantly from previous WIRED RFP grant-funded projects. The activities will require smaller amounts of funding, will be distributed throughout the summer and will be performed in short time frames, but by the end of September 2009, at the latest.

RFPs under the Solutions Teams process will have strictly defined project requirements and outcomes. An example would be a targeted RFP for a course offering in higher education that would be team taught by industry representatives and that would prepare students for more immediate placement in industry positions or internships. The amount of funding available for the RFP would be fixed and proposals in response to the RFP would detail how the proposing organization would accomplish the outcome for that amount of funding.

Much of the Solutions Teams' work will be activities that address WIRED panel recommendations and have outcomes that would include potential placements, improved networking among workforce, education, and industry partners, and demonstrations of sustainable activity for regional talent development strategies and workforce development system transformation.

A few categories of WIRED Solutions Team activities are described below.

WIRED Initiated and Funded Activities (Events Hosted by WIRED)

WIRED initiated and funded activities include daylong or multi-day meetings or symposia around WIRED "Solutions" topics. An example of such an activity would be a day-long conference on occupations in the emerging biofuels industry. Such a meeting could have "job fair" component that would serve to help make connections for job or internship-seeking students and job seeking adults. WIRED funds would directly support this activity.

Partner participation will be a requirement of all Solutions Teams activities, and partners will work to remove administrative barriers to implementing Solutions Teams' work.

Partner participation (such as donation of meeting space, staffing, refreshments, or other form of support to which a dollar value could be attached) could be documented in letter form, recording their costs as financial leverage to the WIRED funds, as well as any actions of their own relative to the event. An example of leverage would be the donation of meeting space by a higher education institution. An example of a related action would be a Workforce Center identifying and inviting interested jobseekers to an event.

This category of activity has the potential to scale up from simple and small networking meetings of education, workforce, and industry, to multi-day symposiums. It will also be the quickest to get started and provide the broadest application to WIRED issues within and across industry clusters.

Start timeline: Projects can be identified in the first or second Solutions Teams meetings for immediate implementation.

Advantage: complex solicitation and contracting processes not involved.

WIRED Participation or Sponsorship Involvement in a Signature Activity

A “signature activity” is defined as an activity that is limited to or characteristic of a single organization, that is directed (with participation strongly encouraged) by national or regional WIRED interests or partners, or that is a time-limited event or activity for which a single contract selection among multiple potential contractors/partners is not possible.

Examples currently active or under consideration include:

- NGA Grant STEM Network Support
- WIRED support for workforce system involvement in the CBSA Battelle update of the Colorado Bioscience Strategic Plan;
- WIRED participation in Curriki;
- WIRED participation in the DOL/Kauffman Pilot Project;
- WIRED support for the Colorado Department of Education’s work with regional industries in our clusters.

WIRED Solutions Teams’ Activity from Panel Recommendations

WIRED Solutions Teams will identify some modestly funded (i.e., less than \$5,000) activities or projects from panel recommendations that can only be done by an outside contractor or organization that would require some method of selection and formal agreement. For example, for a program that could be done by one or more workforce centers, WIRED would have to have a method of soliciting participation by workforce centers and then a selection method to decide which workforce center(s) receive funding for the activity. Ideally, a simplified contract or Memorandum of Understanding could be used for this level of investment.

Start timeline: Projects can be identified in the first or second workgroup meetings for immediate implementation.

WIRED Targeted RFPs

Targeted RFPs may be used for solicitations for services (consulting, communication, education, training, placement, etc.) that meet or advance toward specific WIRED goals, that might be provided by one of any number of possible providers or consultants, and that would not happen otherwise without the incentive of WIRED investment.

The WIRED Solutions Teams process must include trigger amounts for the publication of RFP or RFQ solicitations and some simple structural elements for the targeted RFPs. A model for these targeted RFPs would be the defined Small Business Innovation Research (SBIR) solicitations of many federal agencies, which describe a specific problem or issue and what they expect as an outcome, as well as a fixed or not-to-exceed amount of funding available for the activity (typically \$100K).

Start timeline: Targeted RFP topics can be identified in the first or second Solutions Teams meetings for immediate solicitation and over a period of four months of meetings (April through August). Additional topics can be generated to fulfill whatever budgeted investment is defined. Many of these RFP targets can be generated by review of panel recommendations with the question “What proposals to address these recommendations have we not seen?” Others may be generated by a review of best practices observed in other WIRED regions.

5. WIRED Technical Assistance/Resources

None requested at this time.
