

Trends in Technology-Based Economic Development:

Local, State and Federal Action in 2012

NEW COMMITMENTS TO TBED

COMMERCIALIZING RESEARCH

INVESTING IN A SKILLED WORKFORCE & STEM INITIATIVES

RE-ORGANIZATION/BRANDING

STRATEGIC & COMPETITIVENESS PLANS

TAX INCENTIVES

LOCAL & PRIVATE ACTIVITY ON THE RISE FEDERAL EFFORTS STRENGTHENED

Unlike last year's slate of sweeping new proposals and initiatives to reorganize economic development activities brought on by more than two dozen new governors in office, 2012 witnessed changes to state and regional tech-based initiatives on a smaller scale with states making more strategic investments. This pattern of heightened activity in the first year of a new gubernatorial administration with fewer proposals in the second year is typical, particularly in the 20 states with biennial budgets.

ABOUT SSTI

The State Science and Technology Institute is a national nonprofit organization that leads, supports and strengthens efforts to improve state and regional economies through science, technology and innovation.

An uneven jobs recovery across the nation has resulted in a small number of states and regions heavily investing in new growth strategies while many others are scaling back drastically. The Center for Regional Economic Competitiveness (CREC) recently reported that state spending on economic development has fallen almost 40 percent from FY2009 to FY2012¹. This reduction is due in part to tight fiscal conditions in the states where in the 2nd quarter of 2012, total state tax revenue was 5 percent lower than the peak levels seen in the 3rd quarter of 2008, according to a Rockefeller Institute of Government study².

Several states unveiled new branding strategies or mergers within departments aimed at ramping up economic development activities, distinguishing their regions as tech-friendly hubs, or combining programs for a broader focus with more impact. Connecticut and Hawaii both announced mergers while Kentucky and Mississippi introduced branding efforts that designate innovation as the driving force of their mission.

Initiatives aimed at commercializing new technologies and investing in research were common approaches taken in many states over the past year, including in Colorado, Maryland, Michigan, Idaho, Virginia and Washington. Some states, including Nebraska, New Hampshire, New Mexico, Pennsylvania and Wisconsin, made modifications to tax incentives to encourage more private and outside investment.

¹CREC State Economic Development Program Expenditures Database: http://stateexpenditures.org/. Note: FY09 data are actual expenditures while FY12 data reflect the states' budgeted spending on economic development.

²Rockefeller Institute of Government State Revenue Report, October 2012: http://www.rockinst.org/pdf/government_finance/state_revenue_report/2012-10-25-SRR_89_v2.pdf.



States also recognized a growing skills mismatch amid workforce challenges projected for years to come, and have responded by stepping up efforts to address the anticipated shortages. Examples include STEM learning exchanges and hubs in Illinois and Iowa, and efforts in Missouri, Texas and Utah to retrain workers or increase the number of graduates with in-demand degrees.

Meanwhile, as state investment slowed, local and federal activity became more robust with several tech-focused initiatives announced in the last year aimed at attracting talent and entrepreneurs and supporting regional clusters in targeted sectors likely to have the most impact on new job creation. Chicago, New York City, Philadelphia, St. Louis, and Skokie, IL, are some of the cities leading the charge with nonprofit accelerators, public-private funds and other programs. At the federal level, multi-agency initiatives such as the i6Challenge and Jobs and Innovation Accelerator Challenge have created pathways for states and regions to compete for funds to stimulate economic growth by supporting groundbreaking and potentially transformative projects.

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New Commitments to TBED



States made fewer large investments in tech-based initiatives this year, a trend that is reflective of more policymakers interested in quick returns and fast job creation rather than a longer-term economic development approach that requires more resources. New commitments primarily were targeted toward research and dedicated funding for entrepreneurs.

EXAMPLES INCLUDED:

Connecticut Connecticut Innovations (CI), the state's quasi-public authority responsible for technology-based economic development, announced in January board approval of a plan to deploy \$250 million in new funding to expand programs for entrepreneurs and recruit startups. Half of the funding is from a recapitalization of funds (\$125 million) in Gov. Dan Malloy's jobs bill (HB 6801) signed into law in October 2011. The plan calls for \$50 million per year over five years, consisting of \$25 million per year from the state, along with a matching \$25 million per year over the same period from CI itself. CI will recruit early stage, high-potential companies from other states, leverage its knowledge of the technology industry and investment community to attract outside investment to match CI funds, and utilize its expertise to expand existing initiatives and launch new initiatives to invigorate Connecticut's emerging technology sector. The plan includes:

- \$22 million per year for seed stage and Series A investments, which help entrepreneurs grow existing businesses, and for follow-on investments in CI portfolio companies.
- \$7 million per year for the aggressive recruitment of emerging technology companies nationally and internationally. CI plans to work with the Department of Economic and Community Development (DECD) and other state agencies to design a relocation incentive package, similar to the governor's "First Five" initiative.
- \$6.5 million per year for a newly developed loan program, which provides growth and working capital for technology companies.
- \$4.8 million per year to establish technology business accelerator hubs, which will provide support services to startups, and to create a corporate technology transfer initiative.
- \$4 million per year to help Connecticut companies capture more of the federal Small Business Innovation Research (SBIR) funds each year, as well as increase industry partnerships and the state's technology talent pipeline.
- \$4 million per year for CI's pre-seed program, which offers loans to support the formation of new Connecticut technology companies.





New Commitments to TBED continued

Colorado Lawmakers approved a \$4 million funding boost for economic development incentives requested by Gov. John Hickenlooper to help the state attract high-wage jobs. The Colorado Office of Economic Development and International Trade will use the additional funds allocated in the FY13 budget for performance-based incentives to businesses seeking to expand or relocate in the state.

Hawaii Gov. Neil Abercrombie signed HB 2319, which appropriates \$2 million to establish a venture accelerator funding program. The measure was introduced to help fill a systematic gap in providing support for startup companies attempting to commercialize inventions and create competitive global businesses.

Idaho In March, Gov. Butch Otter signed into law HB 546, a measure to establish the Idaho Global Entrepreneurial Mission (IGEM), an industry-university research partnership to facilitate and accelerate tech transfer. The legislature approved a total of \$5 million for the initiative within the FY13 Higher Education and Commerce budgets.

The bill signed by the governor modifies the existing Idaho Innovation Council into an oversight and governing body called the IGEM Council, which is charged with distributing grants, developing and implementing a statewide strategic plan for innovation and establishing objectives for the program. Funding for the initiative is divided among three areas:

- \$1 million for the Department of Commerce to set up the IGEM Innovation Grant Fund for investment in new technologies with oversight from the IGEM Council;
- \$2 million in increased funding for Idaho's universities; and,
- \$2 million in ongoing, permanent support for the Center for Advanced Energy Studies.

The organizational structure is set up so that up to 5 percent of commercialization revenue is reinvested into the Innovation Grant Fund. IGEM is modeled after programs in Colorado, Utah and Virginia.

Massachusetts Lawmakers overwhelmingly passed a bill (HB 4352) creating a \$50 million R&D Matching Grant Fund for investment in high-growth areas with priority given to large-scale, long-term R&D activities that have the greatest potential to support science and technological innovation and job opportunities through industry partnerships. The bill also establishes an entrepreneur and startup venture capital mentoring program, funding to provide paid internships to startup technology companies, and includes measures to address the state's skills gap and promote manufacturing competitiveness.

> The bill authorizes \$25 million in new bond funding with another \$25 million from previous bond authorization. Funds will be administered by the Massachusetts Technology Collaborative (MTC) - a public economic development agency - and awarded to projects sponsored by the University of Massachusetts, research universities and nonprofit research institutions.

> To help match startup technology companies with talent, the bill allocates \$2 million for support services to entrepreneurs offered through MTC. This includes \$1 million to establish a talent

New Commitments to TBED continued

Massachusetts pipeline program that provides paid internships with a 1:1 matching requirement and \$1 million continued for an entrepreneur and venture capital mentoring program.

> To help promote manufacturing competitiveness, the bill calls for establishing an advanced manufacturing collaborative to develop and implement a statewide agenda identifying emerging priority areas and making recommendations for high-impact projects and initiatives. A manufacturing futures program also will be established to provide grants and loans for helping improve access to technical assistance for small- and mid-sized manufacturers, encouraging the adoption of new technologies, and fostering academic and industry collaboration, among other goals.

Michigan The Michigan Economic Development Corporation announced more than \$20 million in funding for five new programs under the Pure Michigan Business Connect Initiative, established as an economic gardening model in 2011 to help connect businesses with new opportunities. The new programs include: \$20 million for Develop Michigan, Inc., a nonprofit public-private partnership to bring financing tools and financial expertise to community redevelopment projects; a publicprivate partnership designed to fill capital gaps for small- and medium-sized, job creating businesses; a microloan program; a web-based B2B system that will link companies together to find collaborators, suppliers and new business opportunities; and export assistance and financial assistance to help small- and medium-sized businesses compete globally.

New Jersey The New Jersey Medical and Health Sciences Education Restructuring Act, signed by Gov. Chris Christie in August, is aimed at elevating Rutgers University to a top-tier medical education and biomedical research institution that will attract business investment and bolster the regional economy. Major parts of the restructuring effort include Rutgers taking over most of the University of Medicine and Dentistry of New Jersey (UMDNJ) and Rutgers-Camden forming a partnership with Rowan University. A school of Biomedical and Health Sciences within Rutgers will be comprised of the schools, institutes and centers of UMDNJ. The legislation also establishes Rowan as a public research university.

> Voters approved in November a ballot measure authorizing \$750 million in bond funding for buildings and upgrades at all New Jersey colleges and universities.

New York Lawmakers approved a new round of funding for the state's 10 regional councils and university challenge program initiated last year in the FY13 budget (S6258-D/A9058-D). The budget authorized \$220 million in new funds to help implement strategic plans identified last year. Of this amount, \$150 million is new capital funding and \$70 million is tax credits from the Excelsior Jobs program.

> A new round of \$30 million in capital funding also is included for the NYSUNY 2020 Challenge Grant program, which allows four university centers to apply for challenge grants to expand facilities and enhance research-focused programs.

> To help grow a new high-tech cluster in Buffalo, lawmakers approved \$100 million in first-year funding toward a 10-year, \$1 billion effort to bring high-tech industry and jobs to the region. Of





New Commitments to TBED continued

New York this amount, \$75 million is new capital funding and \$25 million is tax credits from the Excelsion continued Jobs program.

Virginia In the 2012-14 budget, lawmakers provided \$5 million over two years — half of the funding initially requested by Gov. Bob McDonnell — to establish a research consortium comprised of six universities that will contract with private entities, foundations and other government sources to capture and perform research in the biosciences. A dollar-for-dollar funding match is required.

Washington In pursuit of joint industry-university research that can be used in aerospace firms, lawmakers passed a bill (SB 5982) creating the Center for Aerospace Technology and Innovation. The center will be operated as a multi-institutional education and research center under the authority of the University of Washington (UW) and Washington State University. The supplemental budget approved by lawmakers includes \$1.5 million for UW and \$65,000 for Innovate Washington in support of the center.

Commercializing Research



One thematic area that saw considerable activity in 2012 was commercializing research. Efforts to encourage more economic activity from university research has been increasing in activity in recent years as states and universities attempt to build off the research assets. Among the approaches being taken are university/industry partnerships, proof-of-concept funds and joint ventures.

EXAMPLES INCLUDED:

Colorado A partnership between the Innovation Center of the Rockies (ICR) and Colorado State University (CSU) Ventures was formed to accelerate on a statewide level technology commercialization based on faculty research. CSU faculty and graduate researchers will be matched with ICR's network of more than 1,000 advisors and mentors to spur new business creation. The focus is primarily on the commercialization of bioscience, cleantech, engineering, aerospace and IT/ software technologies.

Connecticut Lawmakers passed a bill (SB 80) to strengthen R&D efforts at colleges and universities by expanding authority of higher education institutions to create technology test beds by purchasing emerging technology for testing and evaluating. This allows universities to test new technologies, products or processes to assess commercial potential and the possible benefits to the state's economy.

Kansas A new proof-of-concept fund supported by the University of Kansas will provide funding to mature research projects in all areas of technology, helping to attract industry investment and bring products to market. Applicants can apply for up to \$50,000 per proposal and must clearly indicate economic potential of their technology and identify companies that would be suitable partners for commercial success, according to a press release. The university announced it would award a total of \$200,000 in 2012 funding.

Maryland Building on the momentum of the *Invest*Maryland initiative passed last legislative session, Gov. Martin O'Malley unveiled a joint venture between the state, federal research labs and five universities to accelerate technology commercialization. Approved by lawmakers in April, the Maryland Innovation Initiative (HB 442) is a new fund administered by the Maryland Technology Development Corporation (TEDCO) that aims to move 40 new discoveries a year out of the lab and into the marketplace. The five participating universities contribute between \$100,000 and \$200,000 on an annual basis, combined with \$5 million in state funding approved in the FY13 budget. Funding will support startup grants to innovators best positioned to push their technology and business plans into the marketplace quickly.





Commercializing Research continued

Maryland TEDCO also will manage a new \$50 million investment fund providing seed capital to launch continued new businesses that use technologies from government and university research labs in Maryland, Delaware and Washington, DC. The Chesapeake Regional Innovation Fund will invest in startups focused on the areas of life sciences, energy and security.

Michigan Established in late 2011, the Michigan Corporate Relations Network (MCRN) took off last year working to create partnerships that connect businesses to university resources that support innovative research and growth in the state's economy. The MCRN was established with six of the state's 15 public universities and offers a comprehensive Business Engagement Center to connect entrepreneurs with companies and help them access university library resources.

MCRN also has developed three program activities for small and large firms:

- Small Company Innovation Program provides small businesses with access to matching funds to engage the MCRN partner universities on company-specific research projects.
- Small Company Internship Award provides funding for students to work as summer interns or cooperative positions with corporate partners (typically in STEM fields) on projects that are both beneficial to the company and academically relevant to the student.
- Instant Innovation Program the program brings faculty experts from the universities together with companies to tackle significant business and research challenges identified by the companies in a day-long, facilitated brainstorming session.

Minnesota The University of Minnesota plans to launch two new funds in 2013 to support novel ideas coming out of the university. One will be a \$20 million seed fund limited to university startups, and the other will be a \$50 million national venture fund that will seek additional private capital and be open to entrepreneurs from across the country.

New York The Rochester Institute of Technology (RIT) dedicated \$3.5 million in reserves to launch a venture fund for assisting companies with ties to the university. RIT officials touted the ability to offer financial assistance on top of their already comprehensive suite of services such as Venture Creations and a Center for Student Innovation and Entrepreneurship. Officials anticipate about \$500,000 will be awarded per year to a few businesses.

Ohio The UC Technology Commercialization Accelerator was formed under a partnership agreement between the University of Cincinnati (UC) and the Midwest EB5 Regional Center to help transition technologies out of the university into the marketplace. A total of \$750,000 was committed toward the project. A competitive application process will be used to assess a technology's viability for startup and licensing opportunities and gap funding or pre-seed awards will be provided by the accelerator to the most promising ideas.

Commercializing Research continued

Pennsylvania As part of a presentation mapping out Drexel University's plans to transform a section of the surrounding area into an "innovation neighborhood," the president of the university announced it would launch a new venture fund in 2013. The fund will support Drexel University faculty, students and alumni and area entrepreneurs. The announcement was made shortly after Philadelphia Mayor Michael Nutter outlined his plans for two public-private venture funds (see page 20).

Washington With funding from foundations, investors and the state, a \$20 million early stage venture fund was launched at the University of Washington (UW) for investing in promising startups spun out of UW and other research institutions across the state. The W Fund will help the most promising research and student-generated startups clear early financing hurdles, gain traction more quickly, and reach venture-fundable milestones. It also is expected to help advance UW's Commercialization Initiative, which aims to double the number of new companies created at the university over the next three years.



Investing in a Skilled Workforce & STEM Initiatives



Activity surrounding workforce issues related to science, technology and innovation has increased greatly over the last two years. Given the skills mismatch seen in several states and across many high-tech sectors, state-level activity to support a skilled workforce will become an even greater focus, especially as the economy improves.

While the number of unemployed workers remains fairly high, the number of job openings is on the rise with 3.8 million openings in June 2012, compared to 3.1 million in June 20113. However, employers struggle to find skilled talent to fill the job openings. A recent survey of manufacturing employers found that 67 percent reported a moderate to severe shortage of available, qualified workers and 56 percent anticipate the shortage to get worse in the next three to five years4.

Several states have initiated high-tech workforce programs and STEM initiatives in partnership with higher education and the private sector.

EXAMPLES INCLUDED:

Illinois Gov. Pat Quinn announced the details of a \$10.3 million planned partnership to develop "STEM Learning Exchanges" across the state. Eight organizations will be awarded contracts to work with regional, educational and business networks to aggregate curricular resources, assessment tools, professional development systems, work-based learning opportunities and problembased learning challenges. Funding for the initiative will be drawn from \$2.3 million in federal Race to the Top funds, with another \$8 million leveraged from private partnerships.

Iowa Gov. Terry Branstad announced the first major initiative of the Governor's STEM Advisory Council, a public-private partnership of six regional STEM network hubs to promote STEM education and economic development. Each of the hubs will be housed at one of the state's universities or community colleges, and will coordinate local programs with businesses, nonprofits and other institutions in their regions. The six winning hub applications lay out the hubs' individual approaches to elevating the quality of STEM education and matching efforts with the needs of local employers.

³Bridging the Skills Gap: Help Wanted, Skills Lacking: Why the Mismatch in Today's Economy?: http://nist.gov/mep/upload/Bridging-the-Skills-Gap_2012.pdf

⁴Boiling Point? The Skills Gap in U.S. Manufacturing: http://www.themanufacturinginstitute.org/~/media/A07730B2A798437D98501E798C2E13AA.ashx

Investing in a Skilled Workforce & STEM Initiatives continued

Massachusetts Gov. Deval Patrick introduced a proposal to align the state's 15 community colleges under a statewide system with authority to allocate funding included in the FY13 enacted budget. The measure aims to provide more skilled workers for regionally specific jobs by increasing oversight and integration of workforce development initiatives. The governor met with community college board chairs in December to discuss implementation of the plan.

> A new community college workforce grant advisory committee will establish criteria and guidelines for awarding grants to community colleges based on partnerships with businesses and other educational institutions, alignment of degree programs with regional workforce demands, and higher rates of degree completion. The FY13 budget provides new funding of \$5 million in Performance Incentive grants to support the initiative. Another \$2.25 million in Rapid Response grants also will be distributed through a competitive process. To obtain the funding, community colleges must establish workforce training programs that begin within three months of an employer request and provide accelerated degree or certificate programs for working adults.

Michigan Lawmakers concurred with Gov. Rick Snyder's recommendation to increase funding for universities and community colleges by 3 percent based on performance measures that include R&D expenditures and degree granting in critical skills areas. The deal also includes a tuition cap of 4 percent and requires universities to participate in the Michigan Transfer Network. Increased funding is distributed to individual institutions based on the following criteria:

- Number of undergraduate degrees awarded in critical skills areas;
- Performance comparisons versus national peers for six-year graduation rate, total degree completions and institutional support as a percentage of core expenditures; and
- R&D expenditures.

Missouri Gov. Jay Nixon announced nearly \$9 million in grants to establish Innovation Campuses across the state. The initiative will provide high school students with intensive training in science and technology fields through apprenticeships with local employers while they also earn college credit. To participate in the program, corporate partners commit to creating or re-training a specified number of jobs, and in return, the companies will be supplied with highly trained candidates for the new positions once they have completed their degrees and apprenticeships.

Pennsylvania Gov. Tom Corbett signed into law a series of bills (Act 104, Act 132 and Act 134) intended to give state-owned universities more flexibility in working with regional businesses and creating new advanced degree programs. The bills are known collectively as the Higher Education Modernization Act and apply specifically to the Pennsylvania State System of Higher Education (PASSHE), which is the nation's 10th largest state university system, incorporating Pennsylvania's 14 state-owned institutions. Under the new legislation, PASSHE universities can create new applied doctoral programs to meet the needs of Pennsylvania businesses. The legislation also allows faculty, staff and students to enter into agreements with businesses, enabling them to participate in entrepreneurial activities, internship and mentoring programs.





Investing in a Skilled Workforce & STEM Initiatives continued

South Dakota In a state with unemployment less than 5 percent, employers are struggling to find enough qualified workers to fill positions in fields such as accounting, engineering, manufacturing, and information technology. A proposal by Gov. Dennis Daugaard to hire the employment firm Manpower to recruit more than 1,000 new workers across the state for open positions was solidified when the legislature approved \$5 million for the effort in the FY13 budget. The state will pay half of the cost per placement with businesses contributing the other half. The effort is part of the governor's South Dakota Wins initiative, a 20-point plan to address short- and long-term needs for professional and skilled workers in the state through a collaborative effort of business, education, health, and labor leaders.

Texas In an effort to preserve a highly skilled workforce that some state leaders fear may be lost due to the ending of the Constellation program - a five-year effort to return astronauts to the moon - a public-private partnership was formed between the state and a nonprofit advanced technology business consortium. The goal of the Texas Innovation Program is to link aerospace workers with private sector partners to create new companies, expand existing companies, add jobs and keep working talent in the state. The state awarded \$500,000 toward the effort, which seeks to help some of the 3,000 aerospace workers transition their skills into creating new companies and products. Another \$250,000 from the Texas Emerging Technology Fund also was awarded to the Houston Technology Center to create a Regional Center for Innovation and Commercialization to provide resources to the scientific entrepreneurial community.

Utah Gov. Gary Herbert announced a new public-private partnership to establish the Salt Lake City region as a top 10 center for technology jobs and businesses. To achieve this goal, the state plans to undertake a statewide planning process to identify and build on current successes and create greater collaboration in Science Technology, Engineering and Math (STEM) education. The statewide STEM education and workforce partnership is a collaborative project of the Governor's Office of Economic Development, the Utah System of Higher Education, the Utah State Office of Education and Prosperity 2020 - a business-led movement to advance educational investment and innovation within the state. The state hopes that by 2020:

- 66 percent of Utahns will have post-secondary certificates and degrees;
- 90 percent of Utah elementary students will be proficient in reading and math; and,
- The greater Salt Lake area will be a top 10 center for technology jobs and businesses.

Washington Three grant programs aimed at preparing students for careers in aerospace were approved under HB 2159 during the regular legislative session. Funding in support of the initiatives (\$700,000 total) was included in the 2012 supplemental budget:

- \$300,000 for 12 high schools to implement an aerospace assembler program to train students for entry-level careers in the field;
- \$250,000 for advanced Project Lead the Way courses at 10 high schools; and
- \$150,000 for aerospace and manufacturing technical programs housed at two skill centers.

The budget also includes \$3.8 million each for the University of Washington and Washington State University to expand engineering enrollment in FY13.

Re-Organization/Branding



Fiscal constraints and an uneven economic recovery across the country have contributed to increased competition among states. Although most re-organization of state economic development activity occurred in 2011, coinciding with the election of 28 new governors, a handful of states unveiled new branding strategies or mergers to achieve a broader focus with more impact.

EXAMPLES INCLUDED:

Connecticut During a special one-day session on jobs, lawmakers passed HB 6001, which merges the Connecticut Development Authority with Connecticut Innovations. The merger, which was part of Gov. Dan Malloy's 2012 legislative agenda, is intended to improve efficiency and effectiveness of the agencies' programs. The goal of the combined entity is to stimulate business development by pairing an equity investment firm with a traditional bank lender to create a one-stop quasi-public agency responsible for investing in economic development agencies.

Hawaii The High Technology Development Corp. established a new Innovate Hawaii program, a combination of the former Small Business Innovation Research and Manufacturing Extension Partnership programs. Innovate Hawaii will offer state matching grants and assistance to small businesses. The program will expand on previous initiatives that begin with initial funding, which leads to further development and attracts private investors and commercialization.

Kentucky To better serve all parts of the state by connecting experienced mentors with startup companies, the Kentucky Innovation Network was re-branded with a new name and logo, a tighter focus, and expanded services. Established in 2002 as the Innovation and Commercialization Center program, the Kentucky Innovation Network will offer services to entrepreneurs from 13 locations across the state, and as part of the re-branding effort, three smaller centers will be upgraded to full-service centers. The centers offer services such as business mentoring, assistance to growth strategy and access to funding and capital networks. Officials say the new name complements an increased emphasis on promoting the network's statewide, multi-office capabilities and resources.

Mississippi The Mississippi Technology Alliance (MTA) was renamed Innovate Mississippi to better clarify its mission of driving innovation and technology-based economic development. The group wanted to broaden the term "technology," to match its work with entrepreneurs and companies in the areas of agriculture, energy, bioscience and manufacturing. Innovate Mississippi assists in the growth and early stage funding of companies throughout the state.





Re-Organization/Branding continued

Oklahoma Lawmakers passed a bill (SB 1969) to eliminate the EDGE Fund (Economic Development Generating Excellence), and transfer the remaining funds to the Oklahoma State Regents Endowment Trust Fund to match privately funded endowed chairs, mostly in the areas of science, technology and math.

> The program was conceptualized in 2003 under Gov. Brad Henry as a \$1 billion endowment to support strategically targeted research across the state, and when fully funded the endowment was expected to generate up to \$40 million annually for investment toward matching grants to compete for federally funded centers of excellence, investing in capital for technology commercialization, and providing startup capital to attract researchers to the state, among other priorities. An initial appropriation of \$150 million was provided in 2006 and despite several attempts by Gov. Henry in the following years to provide a permanent funding source for the program, legislators did not allocate additional funds.

Oregon Lawmakers passed HB 4040, the Oregon Investment Act, which was drafted based on input from Oregon businesses. The measure establishes the Oregon Growth Fund and Oregon Growth Board to encourage investment in and availability of capital to Oregon businesses. Specifically, the act allows private investors to partner with public economic development efforts, allows consolidation and simplification of existing economic development resources and efforts under a unified strategic framework, and creates a flexible approach to investments with the ability to adapt to changing conditions.

Wisconsin Gov. Scott Walker announced a new "In Wisconsin" branding effort designed to help create private sector jobs by highlighting what the state has to offer. The campaign targets companies and site selectors through ads and broadcast media. The state partnered with the Wisconsin Broadcasters Association to produce and distribute brief weekly radio addresses. A new website was launched to help businesses looking for information about starting, moving or growing jobs in Wisconsin. The newly created semi-private Wisconsin Economic Development Corp. plans to use \$500,000 of its annual \$2 million marketing budget on the effort.

Strategic & Competitiveness Plans



Several states unveiled long-term strategic and economic competitiveness plans charting a path for economic prosperity. Many of the plans included below identify technology-based industries or sectors in which they will focus their efforts.

EXAMPLES INCLUDED:

Alabama Accelerate Alabama provides direction for Alabama's economic development efforts over the next three years. The plan identifies 11 targeted business sectors for Alabama to focus its efforts, divided among two categories: Advanced Manufacturing and Technology. These areas include: aerospace/defense, automotive, forestry products, chemicals, biosciences, information technology, and enabling technologies among others. Similar to the economic gardening concept that has emerged in many other states, the Alabama plan moves away from pure recruitment efforts and focuses on creating and fostering a system that enhances the growth potential of jobs through technology developed within the state. Creating the Alabama Innovation Council to serve as a statewide, coordinated initiative is imperative for this effort to succeed, the report finds.

Accelerate Alabama Strategic Economic Development Plan

Georgia The Georgia Competitiveness Initiative was led by a group of business leaders and government officials tasked with identifying regional and statewide factors affecting the state's competitiveness. The group surveyed Georgia's 12 regions and found collaboration and leveraging assets to support existing businesses are most critical for enhancing the innovation economy. Areas of focus include: business climate, education and workforce development, innovation, infrastructure, global commerce, and government efficiency. Georgia Competitiveness Initiative Report

Kentucky Kentucky's Unbridled Future provides direction to the Kentucky Cabinet for Economic Development and its partners over the next five years in guiding the state's economic development efforts. The plan includes both the identification of 10 strategic business/industry sectors for Kentucky to focus its economic development efforts and six priority areas with actionable strategies related to each. Targeted industries include: advanced manufacturing, sustainable manufacturing, technology, transportation, and healthcare. Kentucky's Unbridled Future Strategic Economic Development Plan





Strategic & Competitiveness Plans continued

Massachusetts Choosing to Compete in the 21st Century: An Economic Development Policy and Strategic Plan for the Commonwealth of Massachusetts was put forth by the Economic Development Planning Council under Gov. Deval Patrick and describes five broad categories for action that were identified as most important for Massachusetts to retain or improve its competitive position in the world's economy. These include:

- Advance education and workforce development for middle skill jobs through coordination of economic development and workforce development programs;
- Support innovation and entrepreneurship;
- Support regional development through infrastructure investments and local empowerment;
- Increase ease of doing business; and,
- Address cost of competitiveness.

Mississippi Sponsored by the Mississippi Economic Council, Momentum Mississippi and the Mississippi Partnership for Economic Development, Blueprint Mississippi serves as a road map for economic competitiveness by nurturing the business climate, improving education and advancing economic development through a partnership among business, education and government. To measure the state's performance, the report benchmarks Mississippi's progress against the other 11 "blueprint" states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. The report recommends examining opportunities to grow the health care industry cluster, capitalizing on opportunities within the tourism industry sector, and conducting additional cluster research on the state's film industry.

Blueprint Mississippi

Nevada The Governor's Office of Economic Development (GOED) unveiled a plan for the state to diversify its operating system, support regionalism and invest in innovation. The statewide plan builds on legislation passed last session to unify economic development efforts through a regional approach and private sector engagement.

> The plan calls on GOED to establish its organizational structure and designate Regional Development Authorities (RDAs) tasked with developing plans for their regions during the first half of 2012.

The RDAs will serve as the central point of contact for economic development within the regions focusing their efforts on creation and retention of new businesses, expansion of existing companies, and attracting companies from outside the state. A previous economic development study referenced in the plan identified more than 30 industry sectors and categorized them across seven sectors. These include:

- Tourism, Gaming and Entertainment;
- Clean Energy;
- Health and Medical Services;

Strategic & Competitiveness Plans continued

Nevada continued

- Aerospace and Defense;
- Mining, Materials and Manufacturing;
- Business IT Ecosystems; and,
- Logistics and Operations.

The Nevada plan also prioritizes technology-based economic development (TBED) through a statewide innovation and commercialization strategy, increased collaboration with universities and research institutions, and efforts to build an entrepreneurial support structure. Moving Nevada Forward: A Plan for Economic Development Excellence 2012-2014

North Dakota A steering committee commissioned by the 2011 North Dakota Legislature presented in December a 20-year initiative to position the state for economic growth. Public/private research and development was among the three key recommendations that emerged from public meetings held throughout the state. The plan identifies opportunities in recognition of the state's growing manufacturing, technology-based businesses and agricultural and energy industries. This includes linking business with research universities to foster commercialization and economic development through two major initiatives: 1) establish and enhance the Research North Dakota Program to include the ability to make investments in equity capital companies that invest in businesses that use or license university research and technologies, and 2) use state funds and Public Employee Retirement System funds to create a \$50 million pool that will invest in a broad range of venture capital firms, equity capital funds and angel capital funds for North Dakota-based companies.

North Dakota 2020 & Beyond

Oklahoma A report from Gov. Mary Fallin's Science & Technology Council identifies strategies and actions to enhance STEM education and workforce measures in recognition of the state's decline in S&T in recent years. Recommendations include supporting core S&T industry sectors such as energy, aerospace, agriculture, biosciences, security and defense, and new and emerging sectors, including unmanned systems. Additional identified strategies include enhancing workforce development through the strengthening of STEM education programs and engaging and leveraging the foundational sciences.

OneOklahoma: A Strategic Plan for Science and Technology in Oklahoma, 2012



Tax Incentives



In 2011 there was significant activity in the states on either creating or modifying tax incentives involving investing or research and development, but in 2012 only a handful of states addressed the issue. Those states that acted in 2012 modified existing credits rather than creating new credits.

EXAMPLES INCLUDED:

Nebraska Lawmakers passed LB 983, extending the Nebraska Advantage R&D tax credit from five years to 21 years. The goal of the legislation is to strike the limitation on the number of years that a taxpayer can claim on R&D, recognizing that many projects take more than five years to successfully research and develop. One of those tax credits applies to university based R&D projects and the other applies to projects not based on university research.

New Hamphire A bill (HB 518) to extend the state's R&D tax credit another two years was signed into law by Gov. John Lynch. Enacted in 2007 and originally set to expire in 2013, the credit is available to businesses that have qualified manufacturing research and development expenditures. Credits totaling \$1 million are available in each fiscal year.

New Mexico Gov. Susana Martinez signed into law a bill (HB 123) to extend the state's angel investor tax credit for five years. The incentive allows investors to receive up to a \$25,000 state income tax break for each investment of \$100,000 for a maximum of two investments annually, and investments must be in high-tech or manufacturing startups.

Pennsylvania The FY13 budget signed into law by Gov. Tom Corbett removes the Dec. 31, 2015 sunset provision for the Research and Development Tax credit.

Wisconsin Gov. Scott Walker signed into law a measure aimed at improving the state's angel investor tax credit. Under Act 213, investors do not have to pay back the state if a startup fails or is acquired during the first three years of their investment. The bill also allows the state commerce agency to recertify companies for the credit even if their employee count has risen above 100 and they have been in business more than 10 years. Wisconsin's program provides financial backers with a 25 percent tax credit on what they invest in the company.

Local & Private Activity on the Rise



Cities interested in creating an environment that supports startups, attracts talent and encourages entrepreneurship are on the rise in the wake of diminishing resources from the state and federal government.

Nonprofit accelerators grew in numbers over the past year creating a buzz around local startup activity. In contrast to private accelerators whose primary mission is profit, the driving force behind these accelerators is to revitalize cities and help create an entrepreneurial culture.

Many cities also announced locally-based seed and venture funds to grow and attract startup companies.

Following are just a few of the examples from the past year that illustrate a growing trend in local and private activity to support tech-based economies.

St. Louis Arch Grants

Aiming to put St. Louis on the map as a startup hub, a local group of business professionals in January formed the Entrepreneurship Startup Business Development Corporation, a nonprofit group, and launched Arch Grants to provide capital and mentoring support for new company formation. The group's mission is to create a more robust startup culture and infrastructure in St. Louis. Arch Grants selects promising startups to receive \$50,000, access to business networking, collaboration with universities, free legal and accounting services and office space. In November, the group received a \$150,000 donation to fund two education reform focused Arch Grants.

Chicago TIF Plan for Biotech Lab

The Chicago City Council approved in February a \$3.7 million tax increment financing (TIF) plan to help support development of a 54,000-square-foot biotech lab by a company that develops and tests pharmaceutical products. The company plans to double the size of its research staff at the new location over the next five years. The city's funding accounts for about 20 percent of the total cost of the project, which involves renovating a vacant industrial building. Referred to as a "unique profit-sharing concept" in a staff report to the Community Development Commission, the city will receive 10 percent of the company's excess profits above an unspecified amount. If the business is sold for a profit, the city will receive 10 percent of the sales.

New York City Entrepreneur at Large

Working toward its goal of establishing New York City as a global leader in innovation and entrepreneurship, the New York City Economic Development Corporation (NYEDC) hired its first Entrepreneur at Large. One of the main jobs of the part-time expert is to offer guidance within the city's network of incubators and provide regular feedback on NYEDC's existing





Local & Private Activity on the Rise continued

New York City Entrepreneur at Large continued

programs to assist entrepreneurs. The initial stage of the program, which began in late 2011, is expected to last six months. This is the latest initiative in the city's ongoing efforts to encourage entrepreneurship. In addition to city-sponsored incubators, NYEDC launched in 2010 a seed and early stage investment fund with up to \$22 million available for tech startups.

Startup PHL

A partnership between the City of Philadelphia and the Philadelphia Industrial Development Corporation will support local startups and entrepreneurs through two initiatives: a \$3 million seed fund matched by a private investment fund for a total \$6 million, and a \$500,000 fund to support innovative proposals that support entrepreneurs. The goal of Startup PHL is to both capitalize on current assets, such as world-class higher education and research facilities and a burgeoning network of incubators and accelerators, and remove barriers to help grow the city's entrepreneurial community. Addressing a funding gap, the Startup PHL Fund is a public-private venture that will make seed stage investments in tech-based startup companies. Likewise, the Startup PHL Call for Ideas fund will make grants to proposals that enhance collaboration in the startup community, attract new entrepreneurs from within or outside of the community, or foster networks for entrepreneurs to collaborate.

Research Triangle/Wake County Talent Recruitment

Amid increased competition for talent, economic development groups from Research Park Triangle unveiled a campaign to recruit biotechnology workers and showcase the area as an attractive place to re-locate. The 'Work in the Triangle' campaign aims to connect and recruit top talent with employers and job opportunities in key industry clusters. The \$1 million set aside for the talent attraction campaign will provide funding through December 2014.

Skokie, IL, Nanotechnology Employment Initiative

With an outside grant of \$250,000, the Village of Skokie was able to provide matching funds from the village's Downtown Science and Technology Park Tax Increment Finance District to create a job training program to fill the local needs of employers in nanotechnology. The program, called the Nanotechnology Employment, Education, and Economic Development Initiative, or NE3I, will work with high schools in the area to provide hands-on learning opportunities and a certificate program.

Federal Efforts Strengthened



Robust activity surrounding tech-focused initiatives at the federal level continued in 2012 with new programs aimed at attracting talent and assisting entrepreneurs and the continuation of programs launched in 2011 to support regional clusters in targeted sectors likely to have the most impact on new job creation. Efforts launched in the past couple of years appear to point to a sustained trend in federal support for innovation.

EXAMPLES OF MULTI-AGENCY PROJECTS INCLUDED:

The i6 Challenge

Established in 2010, the i6 Challenge continued into 2012 with a new competition to promote proof-of-concept centers at universities and research consortia across the country. Winning projects announced in September and based in Florida, Indiana, Missouri, New Mexico, Virginia, and Wisconsin, each will receive up to \$1 million to establish proof-of-concept centers to support innovators and researchers, expand access to capital, and connect mentors and advisors to entrepreneurs and small businesses.

Jobs and Innovation Accelerator Challenge

Another multi-agency competition, the Jobs and Innovation Accelerator Challenge, was established in 2011 to support high-growth, regional industry clusters. Two competitions occurred in 2012: the Advanced Manufacturing Jobs and Innovation Accelerator Challenge and the Rural Jobs and Innovation Accelerator Challenge.

The Advanced Manufacturing Jobs and Innovation Accelerator Challenge called for initiatives that strengthened advanced manufacturing at the local level through public-private partnerships, such as businesses, colleges, nonprofits and other local stakeholders that "cluster" in a particular area. In October, awards totaling \$20 million were granted to 10 partnerships across the U.S. The 10 winning initiatives, based in Arizona, California, Michigan, New York, Oklahoma, Oregon, Pennsylvania, Tennessee, and Washington, each will receive approximately \$2 million to fund projects that are expected to train up to 1,000 workers and help companies leverage a cluster's resources in their region.

Thirteen economic development partnerships and initiatives were named winners of the Rural Jobs and Innovation Accelerator Challenge. The winning projects were awarded \$9 million in total funding to promote job creation and provide assistance to entrepreneurs and businesses in a wide range of industrial sectors, including advanced manufacturing, agribusiness, energy and natural resources, technology and tourism. Announced in August, the partnerships are based in Alaska, Connecticut, Illinois, Kansas, Louisiana-Arkansas, Mississippi, New Hampshire, North Carolina, South Carolina, Virginia, and West Virginia.





Federal Efforts Strengthened continued

National Additive Manufacturing Innovation Institute (NAMII)

A consortium headquartered in Youngstown, Ohio, was selected through a competitive process as the site for a new manufacturing institute aimed at encouraging companies to invest in the U.S. The federal government awarded \$30 million, matched by \$40 million from the winning consortium, which includes manufacturing firms, universities, community colleges, and nonprofit organizations from the Ohio-Pennsylvania-West Virginia 'Tech Belt" region. The Youngstown-based NAMII will serve as a pilot demonstration center in a proposed national network of up to 15 manufacturing institutes across the country established as regional hubs of manufacturing excellence for increasing competitiveness and encouraging investment in the U.S., under a plan announced by the Obama administration in early March.

SINGLE AGENCY INITIATIVES AND COMPETITIVE PROGRAMS INCLUDED:

Small Business Administration's (SBA) Early Stage SBIC

In May, SBA began accepting the first stage of the licensing process for the new, five-year, \$1 billion Early Stage Small Business Investment Companies Initiative. The program will provide SBA-guaranteed leverage to selected early stage venture funds using its current debenture program authorization with a goal of jump-starting job creation by encouraging private sector investment in small businesses.

SBA Impact Investment Initiative

Under this program, SBA will commit up to \$1 billion to small business companies that are later stage/mezzanine private equity funds that invest growth capital in impact investments. SBA defines impact investments as investments in Small Business Concerns (SBCs), which target areas of critical national priority including underserved markets and communities facing barriers to access to credit and capital. The program is part of the Startup America Initiative and seeks to increase the economic impact of the Small Business Investment Company (SBIC) program. In March, SBA licensed the first nationally-focused Impact Investment Fund, which will make equity investments in cleantech and technology companies in communities across the country.