# REBUILDING THE ECONOMY THROUGH REGIONAL INNOVATION



Six Organizations Share What Works

If we unleash the energies in our metros, we can compete with anyone. Our 100 largest metropolitan areas constitute a new economic geography, seamlessly integrating cities and suburbs, exurbs and rural towns. Together, they house almost two-thirds of our population, generate 74% of our gross domestic product (GDP) and disproportionately concentrate the assets that drive economic success: patents, advanced research and venture capital, college graduates and Ph.D.s, and air, rail and sea hubs."

from Intelligent Cities
Time, October 21, 2010
by Bruce Katz
Vice President & Director
Metropolitan Policy Program
The Brookings Institution

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s the U.S. economy continues to struggle and recover from a deep and prolonged recession, the need for effective and well-proven economic development strategies has never been more apparent. Everyone from mayors and town councils to governors and state legislators to the President and Congress are seeking proven strategies for recovering, building and sustaining economies.

One of the most promising topics garnering significant amounts of attention right now is the Regional Cluster movement, first defined as an economic development concept nearly 20 years ago by Harvard Business School Professor Michael Porter. At its core, this movement seeks to capitalize on geographic and industry collaborations that derive strength from concentrated and widely leveraged development of specific types of industries and that have achieved notable successes across diverse geographies and sectors.

Six of the nation's leading regional development organizations gathered in Washington in July 2010 to begin to identify what works in this field, to detect any looming challenges, and to foster ongoing collaboration among themselves and similar entities across the nation. Each participant brought a unique perspective based on their assets, structure, focus and growth plans. Collectively, the group represents the vanguard of the regional innovation movement.

#### This report presents summary profiles of each participating organization:

- BioCrossroads (Central Indiana)
- BioEnterprise (Northeast Ohio)
- Coalition for Plant and Life Science (St. Louis, MO)
- CONNECT (San Diego)
- Kansas Bioscience Authority (KBA)
- Wisconsin Technology Council

The profiles identify key characteristics including structure and sector focus, funding mechanisms, evaluation metrics, and forward-looking plans. After summarizing the organizations, the report seeks to begin the conversation of identifying a uniform set of best practices being used by each organization to attain success, and looks at the future benefits possible through ongoing collaboration.

#### What this document is...and is not

The main purpose of this document is to capture the wealth of experience shared by each organization during the July 2010 discussions to help identify regional innovation strategies that work. Through collaboration, the leaders will gain insights that would not otherwise be available as they craft forward-looking plans. The report also may serve as a resource to others in regions considering their economic development options. Finally, nothing in this document should be construed as an endorsement of a particular approach or policy by any of the organizations.

#### BioCrossroads

Indianapolis, Ind. biocrossroads.com 317. 238. 2450



BioCrossroads is Indiana's initiative to grow, advance, and invest in the life sciences, a public-private collaboration that supports the region's existing research and corporate strengths while encouraging new business capitalization and development. Founded in 2003, BioCrossroads is directed by a board that includes representatives of Central Indiana healthcare corporations (Eli Lilly & Co, Roche, Dow Agro Sciences, Cook Group), Indianabased research universities (Indiana University/Indiana University School of Medicine, Purdue University, University of Notre Dame), providers and payers (Clarian Health Partners, WellPoint) and civic organizations. BioCrossroads is funded through a combination of multiyear philanthropic grants and equity investments from a core group of these aligned stakeholders.

BioCrossroads is built upon a foundation of life sciences companies and employees that collectively account for more than 30,000 jobs and make the Indianapolis region the nation's 9th largest market for life sciences employment. Perhaps most telling, one-third of the \$36 billion global orthopedics industry is based in Warsaw, Indiana, a community of 15,000 residents located about a 2-hour drive from Indianapolis. This concentration accounts for 7,000 jobs and is the target of a specially designed BioCrossroads initiative, OrthoWorx.

BioCrossroads carries out a diverse set of coordinated initiatives, including efforts to provide money and support to life sciences businesses, launch new life sciences enterprises (Indiana Health Information Exchange, Fairbanks Institute for Healthy Communities, BioCrossroadsLINX, and Datalys Center), expand collaboration and partnerships among Indiana's life science institutions, promote science education, and market Indiana's life sciences industry. Led by CEO David Johnson, a small team of between 8 to 10 professionals manages investment funds and projects, raises capital, fosters collaboration and promotes the region both inside and outside the state.

#### The Participants

#### BioEnterprise

Cleveland, Ohio bioenterprise.com 216. 658. 3999



BioEnterprise is a business formation, recruitment, and acceleration initiative designed to grow health care companies and to commercialize bioscience technologies. Founded in 2002, BioEnterprise seeks to establish the Cleveland region as a nationally recognized center for health care innovation and commercialization. Based in Cleveland, BioEnterprise's founders and partners are Cleveland Clinic, University Hospitals, Case Western Reserve University, Summa Health System, and the BioInnovation Institute in Akron. A board of 14 leaders of the partner institutions, business groups, and national venture investors oversees the organization, and a staff of 20 led by president and CEO Baiju Shah discharges day-to-day operations.

BioEnterprise builds upon the strengths of its internationally recognized health care founders to focus on the medical device, biotechnology and health care service sectors. The organization offers management and business guidance and support, access to capital from seed to growth equity and debt financing, and connections to clinical institutions and technical business resources. Additionally, with regard to clusters, the organization focuses on all elements of the biomedical sector, ranging from start-ups to large established companies and from manufacturing to distribution, supply chain, and equipment servicing.

#### Coalition for Plant & Life Science

St. Louis, Missouri 314. 206. 3235

THE COALITION

FOR PLANT AND LIFE SCIENCES

The Coalition for Plant and Life Sciences is a broadbased civic organization comprised of top business, philanthropic, science, and academic leaders working to position St. Louis as a global center in the high-growth bioscience industry. Capitalizing on the region's world-class research institutions, the Coalition is implementing a set of strategies to position St. Louis as a major international center of biosciences by accelerating the creation of new biotech companies and ensuring that appropriate infrastructure – including venture capital and state-of-the-art laboratory facilities – are available to support firms as they evolve from the earliest proof-of-concept stage into mature companies.

The Coalition began its work in 2001. It is led by founding Chairman, Dr. William Danforth, Chancellor Emeritus of Washington University, with day-to-day operations overseen by an Executive Director, Donn Rubin. At the time of its founding, St. Louis was fortunate to have top notch scientific research universities and institutions (Washington University, Saint Louis University, the University of Missouri – St. Louis, the Missouri Botanical Garden, the Donald Danforth Plant Science Center among them), a handful of larger, mature sciencebased corporations (e.g., Monsanto, Sigma-Aldrich), and two relatively-new, yet successful, bioscience business incubators (Center for Emerging Technologies and the Nidus Center for Scientific Enterprise). However, the region lacked other crucial pieces of entrepreneurial infrastructure and a cohesive, strategic plan to capitalize on the economic potential of St. Louis' research base.

#### CONNECT

San Diego, California connect.org 858. 964. 1300



CONNECT was founded in 1985 by government (EDC), research institutions (University of California, San Diego), and the private sector (Qualcomm, Hybritech) to assist in the commercialization of research discoveries. The organization focuses on research institution support, business creation and development, entrepreneurial learning, access to capital, public policy advocacy, awards and recognition, and networking. At the time of its launch, CONNECT was focused largely on accelerating the wireless technology sector, but the organization has expanded its focus to include multiple sectors and mature clusters today. These clusters include: Defense and Security; Life Sciences; IT, Wireless & Software; Energy & Environmental; and Sports Innovation.

CONNECT is rooted in a legacy of research institutions including the Scripps Institutions of Oceanography, UCSD, and the Salk Institute, the former dating back to the early 1900s and the later two a half-century. Its roots also include a robust defense and military technologies sector that, over time, helped the region expand into other clusters.

CONNECT has a large board of directors that includes representatives from key sectors such as research and education, business professionals, industry and capital providers, and affiliates. There is a separate board of directors for the Foundation, as well as nearly 60 members of the CONNECT Board of Trustees. CONNECT's staff of about 20 professionals is led by CEO Duane Roth and includes a director of public policy based in Washington, DC. The organization sponsors more than two dozen programs that result in about 400 specific events each year. The organization also boasts a volunteer corps of 2,000 community members responsible for the bulk of the content provided through the programming.

Kansas Bioscience Authority

Kansas City, Kansas kansasbioauthority.org 913. 397. 8300



The Kansas Bioscience Authority (KBA) is a \$581 million investment fund established by the Kansas legislature through the Kansas Economic Growth Act (KEGA). Established in 2004, the KBA is the state's largest-ever commitment to expanding Kansas' research capabilities, promoting innovation, and encouraging company formation that will create high-paying jobs. The \$581 million initiative is designed to: Build world-class research capacity; Foster the formation and growth of bioscience startups; Support expansion of the state's bioscience clusters; and Facilitate industrial expansion and attraction.

Through the authority, Kansas offers comprehensive support for world-class research, commercialization, and business expansion to accelerate economic growth and job creation in the state. The KBA's vision is to invest in areas where Kansas has existing strengths: Animal Health, Bioenergy, Biomaterials, Human Health and Plant Biology.

The KBA has a unique funding mechanism that allows for long term, game changing investments. This mechanism takes state withholding taxes from industry defined bioscience companies and transfers them directly into a fund managed by the KBA. A baseline of bioscience sector employee withholdings (from defined NAICS codes) was set at the end of 2003. Since January 2006, 95 percent of any increase over the baseline withholding, if any, has been devoted to bioscience growth in Kansas. The KBA receives quarterly payments from the state treasurer, and the funds accrue solely for the authority's independent use. Funding will sunset when the \$581 million has been transferred into the fund – estimated to occur in the year 2022.

An independent entity of the state, the KBA is governed by an 11-person board of directors comprised of local and national leaders in industry and academia. Of the 11 members, the statute states that one be an agricultural expert, eight be members of the public recognized as experts in multiple fields and two be non-voting members with research expertise and representing the state's universities. A team of nearly two dozen professionals led by president and CEO Tom Thornton discharges the authority's daily operations.

#### The Participants

#### Wisconsin Technology Council

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The Wisconsin Technology Council ("Tech Council") was created by the state Legislature in 1999 and began operating in 2001 as an independent, non-profit organization. The Tech Council advises the governor and state lawmakers on relevant policy issues, provides in-state and out-of-state networking to foster innovation and entrepreneurship, and helps provide technical assistance and financial support through specific programs for entrepreneurs and investors. It seeks to capitalize on a number of existing state assets, including an educated and experienced work force, competitive business costs, a university system that exceeds \$1 billion in annual research and development, and existing bases of companies in the life sciences, information technology, advanced manufacturing, homeland security and other tech-based sectors.

The Tech Council is headed by President Tom Still and governed by a board of about 50 people with roles in business, government and academia. More than 50 current sponsors help underwrite events, publications and other council programming. A half-dozen staffers discharge day-to-day activities, and the council operates or is affiliated with several statewide programs, including: Wisconsin Innovation Network (WIN); Wisconsin Angel Network (WAN); and the Wisconsin Security Research Consortium (WSRC). The council's areas of focus were established in a 2002 report entitled Vision 2020: A Model Wisconsin Economy. They are: Building on the state's technology clusters; Helping to create an Institute for Interdisciplinary Research; and Helping to establish Research Centers of Excellence.

The vision document also established multiple benchmarks including economic output (i.e., total exports, per-capita income); knowledge workers (i.e., number of college graduates, doctoral scientists); knowledge and technology (i.e., patents, R&D spending); and business and finance (i.e., venture investment, net business formations). Five year reviews measure the state's performance in each category; the 2010 evaluation is currently underway by an independent economist.

# Core Initiatives



#### **BIOCROSSROADS**

#### **CAPITAL FORMATION**

A paramount focus for BioCrossroads is raising private capital through the organization, capitalization and continuing sponsorship of a number of targeted investment funds. As a whole, these funds pool institutional investor resources and target the proceeds to support regional economic development. In addition to the direct investment, the funds have attracted more than \$160 million in outside investments to date. The specific funds and their focus include:

Indiana Future Fund and INext Fund: Indiana Future Fund I (IFF) is a \$73 million professionally managed fund established in 2003. IFF has helped attract more than \$150 million in capital from other regions to support investments in early-stage life sciences companies, with a focus on Indiana start-ups. The fund's multiple institutional investors include public retirement funds, university foundations and corporations. Similar to the IFF, the INext Fund is a \$58 million follow-on fund, also focused on funding early-stage life sciences opportunities in Indiana. It was established in 2009.

Indiana Seed Fund: This \$6 million pre-venture fund makes investments ranging in size from \$50,000 to \$500,000 in companies based in Indiana and coming out of university technology transfer programs. The fund seeks to help early-stage initiatives get to the next level and qualify for equity investments from the various venture capital firms participating with the IFF or other sources, and helps achieve this goal by providing technical assistance, taking board seats, and setting milestones.

**Indiana Enterprise Fund:** A \$3 million special purpose fund focused on strategic investment in Health Information Technology (HIT) initiatives.

#### FOSTERING COLLABORATION

In addition to direct and indirect capital formation and attraction, BioCrossroads focuses heavily on building and sustaining cross-cutting collaborations in key growth areas of the life sciences. Perhaps no project better exemplifies this ideal better than the Indiana Health Information Exchange (IHIE).

Indiana Health Information Exchange: Established in 2004 by five of the region's leading hospitals and built on the region's half-century legacy as a leader in digital technology, IHIE now includes 45 hospitals, 10,000 physicians and data from at least three million patients and growing under a nationally recognized, fee-for-service, sustainable business model. BioCrossroads has helped establish, brand, and grow IHIE, which has been referenced by multiple authorities as the nation's largest and most advanced health information exchange. Most recently, this success helped IHIE win one of the highly coveted federal Beacon Community grants – worth \$16 million – to further expand IHIE to more hospitals, providers and patients.

BioCrossroads has raised more than \$245 million to support promising Indiana life sciences initiatives, and has attracted an additional \$160 million in venture funding from outside of the state to support such projects.

**BioCrossroads LINX:** LINX builds on the region's breadth and depth in pharmaceutical and biotechnology manufacturing by pairing contract manufacturers with companies in need of such services. LINX also works with the state's universities to develop sector-focused education and training programs.

OrthoWorx: Launched just last year through a generous grant from the Lilly Endowment, OrthoWorx combines many of the elements of other BioCrossroads initiatives but focuses exclusively on the orthopedics sector, directly involving senior leadership from all the major orthopedics companies and suppliers located in Warsaw, Indiana, once identified by The Wall Street Journal as "the orthopedics capital of the world."

#### **METRICS & THE FUTURE**

BioCrossroads has raised more than \$245 million to support promising Indiana life sciences initiatives, and has attracted an additional \$160 million in venture funding from outside of the state to support such projects. The organization's combined investment funds have jointly supported two dozen Indiana start-ups, and Bio-Crossroads has attracted more than 3,000 life science jobs to Central Indiana. A total of eight self-sustaining life sciences enterprises such as IHIE and OrthoWorx have been established, and BioCrossroads has received substantial recognition from multiple expert sources including academics, the media and government officials as a leading regional innovation engine.

#### THE FUTURE

Attracting and investing private capital in Indiana life sciences enterprises will continue being a top priority for BioCrossroads, as will the active support of initiatives like LINX, OrthoWorx and IHIE. Bio-Crossroads anticipates the organization and capitalization of additional returndriven seed and venture capital funds to advance emerging, promising life sciences companies. Moreover, recognizing that a number of looming public policy issues particularly at the federal level - will have a significant impact on the sector as a whole, BioCrossroads is looking to devote increased attention to helping its investments and others navigate the waters.

#### Specific issues on the radar include:

- Anticipated changes to the Food and Drug Administration's (FDA) 510(k) process for clearing medical devices, and other related issues;
- The impact of comparative effectiveness research (CER) on development of new treatments and therapies;
- The continuing push for cost controls at all levels of the health care system and how this will impact novel treatments;
- Ways to leverage tax credits, like the Research & Development tax credit, to better support small company innovation; and
- Need for effective advocacy for continuing and expanded National Institutes of Health (NIH), National Science Foundation (NSF) and other federal investment for universitybased translational scientific research.



#### **BIOENTERPRISE**

#### ACCELERATING START-UP COMPANIES

BioEnterprise was organized to convene the region's industry leadership and align the region's resources toward the most promising entrepreneurial opportunities in the region that match areas of funding interest by venture investment firms and other sources. Each year BioEnterprise and its partners evaluate about 150 biomedical business opportunities and an additional 350 bioscience invention disclosures. To date, BioEnterprise has assessed nearly 1,300 biomedical opportunities and its technology office partners have reviewed more than 2,400 invention disclosures. The opportunities span the bioscience spectrum from medical devices (59 percent) to HIT and service opportunities (21 percent) to novel biopharmaceuticals (20 percent). The principal sources of opportunities are regional industry entrepreneurs followed by entrepreneurs within the research and health care institutions.

The professional team reviews opportunities using "market-backed" approaches that assess each opportunity's ability to attract follow-on funding from private (venture capital, private equity, or strategic interest) or public sources. The organization's assessment is based on regular and deep engagement with regional and national investment sources as to their current investment interests. These interests change due to macro-industry and global economic factors, and BioEnterprise maintains regular dialogue with funders to stay current on this information.

From that broad deal flow, the most promising 15 to 20 new biomedical opportunities each year are selected for intensive entrepreneurial support. Because of its focus on investment outcomes that are both necessary for and leading indicators of growth, the ideal opportunity for BioEnterprise is a company that has the potential to attract initial and substantial growth funding in at most 18 months. By focusing resources on these companies, BioEnterprise and its collaborators have been able to significantly increase health care venture investment and deals in Northeast Ohio. The region is now averaging \$146 million per year in health care venture investment over the last five years (including the venture drop-off in 2009) and over two dozen companies annually receiving investment. Those numbers are up five-fold from the period before BioEnterprise was formed (which included the "tech-bubble" years) when the region averaged approximately \$30 million in annual health care venture investment and only a handful of companies attracting dollars. The region's performance has firmly established the Cleveland area as a national hotspot and peer region to those for biomedical entrepreneurship.

#### START-UP RECRUITMENT

Another strategy of BioEnterprise is to recruit venture-backed biomedical start-ups from throughout the nation and world, companies BioEnterprise thinks would benefit

Rather than rely on legacy incentives, such as tax breaks,
BioEnterprise offers an existing mature sector for collaborators and clients, a skilled workforce and other assets.

from being located in the area. Rather than rely on legacy incentives, such as tax breaks, BioEnterprise offers an existing mature sector for collaborators and clients, a skilled workforce and other assets. Once promising companies are located, BioEnterprise provides business and management consulting and related services so they can present the strongest case possible to investors.

### DEVELOPING A CAPITAL CONTINUUM

BioEnterprise helps establish and encourage biomedical capital sources – seed, angel, venture, and debt financing sources – in the region and state. The organization has successfully advocated for State of Ohio capital formation programs to help capitalize such funds. In addition, BioEnterprise has partnered with investment groups to assist them in establishing themselves in Cleveland. Below are examples of such approaches.

RiverVest Ventures: Since its inception in September 2000 as a VC firm, RiverVest has raised two investment funds with total committed capital of \$164 million, and supported more than 20 innovative life science companies. Currently, RiverVest and BioEnterprise share a senior management professional who divides her time between both organizations and is located in RiverVest's Cleveland office.

Arboretum Ventures is an early-stage venture capital firm specializing in the healthcare sector. For many funds entering new geographies, the key challenge is finding management talent. Since Arboretum and BioEnterprise have

joint interest in finding and developing medical device companies, both firms have agreed to jointly hire a CEO-in-Residence/Venture Partner who has a proven record of accomplishment in medical start-ups and neurostimulation. The CEO-in-residence's focus was on launching a new neurostimulation venture within 18 months.

**Bridge Investment Fund & Medical Growth Fund:** Bridge Investment is a venture capital fund focused on investing in Israeli medical device companies with strong synergies with the leading health care institutions and industries in Cleveland. Medical Growth Fund (Medical), formed by seasoned healthcare entrepreneurs, invests in revenue generating or revenue-ready opportunities within the medical device, healthcare services and HIT sectors. Both are small strategic funds that cannot support full operations (\$8.5 million for Bridge; \$4.0 million for Medical). Therefore, the BioEnterprise team supports both funds with due diligence, research, and office expenses. To date, seven deals have been funded by these funds.

#### CATALYZING INDUSTRY-ACCELERATING INITIATIVES

As a catalyst for the region's biomedical clusters, BioEnterprise is a partner in a number of transformative community projects, including:

#### Translational Research Institutes:

The research and clinical institutions, supported by significant State of Ohio funding, namely the \$2.3 Billion Third Frontier Program, have created a number of distinctive, translational research

Through its many initiatives BioEnterprise has created, recruited, and accelerated over 90 companies that combined have raised over \$1 billion in outside capital, averaging \$146 million annually over the past five years.

and commercialization institutes. These include the National Center for Regenerative Medicine, with over 100 investigators focused on non-embryonic stem cell therapies, the BioInnovation Institute of Akron, an \$80 million initiative seeking to leverage the region's assets in the advanced materials sector to establish Akron as the leading center for biomaterials, and the Global Cardiovascular Innovation Center, a \$250 million product commercialization consortium with a mission to be an international leader in developing, acquiring, incubating, and commercializing cardiovascular technology.

#### **Biomedical-Related Real Estate**

**Development:** BioEnterprise is a partner with many others in developing visions and execution plans for the Cleveland Health-Tech Corridor. The corridor includes numerous incubator buildings, health care research and clinical institutions, and related services. In addition, BioEnterprise has been engaged in the Cleveland International Fund, an EB-5 investment center, focused on real estate development in the Health-Tech Corridor and adjacent areas.

#### **Cleveland Medical Mart & Convention**

**Center:** A convention center and trade show facility focused on the biomedical industry. Scheduled to open in 2013, the facility expects to host over 100 medical conventions and meetings each year.

## Global Advanced Imaging Innovation Center: A nearly \$40 million venture sponsored by Case Western Reserve

University via an Ohio Third Frontier

grant and Phillips Healthcare, which contributed nearly 90 percent of the funding, to coordinate clinical research, education, and development of advanced imaging technologies in Northeast Ohio.

#### **Workforce Development Programs:**

BioEnterprise works with regional educational institutions, including both universities and community colleges, to develop education and training programs that respond to the current needs of the market. Through constant engagement with the marketplace, BioEnterprise and its partners help produce and offer education and training programs to fit the current needs of the region. Examples of specific programs include a Master's program in entrepreneurial biology offered by Case Western, a medical device manufacturing certificate offered by Cuyahoga Community College, and a biotechnology lab and manufacturing training program from Ashland County-West Holmes Career Center.

#### **METRICS & THE FUTURE**

Through its many initiatives BioEnterprise has created, recruited, and accelerated over 90 companies that combined have raised over \$1 billion in outside capital, averaging \$146 million annually over the past five years. The region has more than doubled the number of companies in the biomedical sector, from under 250 in 2001 to nearly 600 today, which has resulted in an increase of more than 5,000 sector jobs, to more than 20,000. BioEnterprise also counts 23 exits in the region over the same time period, deals that have helped bring more "brand name anchors" to the region.



## COALITION FOR PLANT AND LIFE SCIENCES

#### TECHNOLOGY TRANSFER AND COMMERCIALIZATION

**BioGenerator:** In 2004, the Coalition for Plant and Life Sciences established the BioGenerator, a non-profit commercialization center, to work closely with universities, scientists, entrepreneurs, and investors to start new companies and bridge the gap between laboratory research and commercial application. The program was funded initially with \$6 million in grants from the Danforth Foundation, the James S. McDonnell Foundation, the Monsanto Fund, and Bunge North America. In recent years, the BioGenerator has invested \$3.3 million of seed funding in 13 new bioscience companies, which have leveraged an additional \$28.5 million – almost 9 to 1 – in coinvestments and follow-on funding.

The BioGenerator's newest initiatives include its recently established "Spark Fund" that will help advance early technologies toward company formation and seed funding through smaller, pre-company proof-of-concept grants. The grants support proof-of-concept studies and activities such as development of prototypes and acquisition of samples and reagents. In October 2010, the BioGenerator opened the BioGenerator Accelerator Labs to provide critically needed experimental facilities – including costly but vital shared equipment – that individual entrepreneurs and start-up companies cannot afford. The space is specifically designed to produce very early stage proof-of-concept technologies at little or no cost to scientists and entrepreneurs.

In September 2010, the Coalition for Plant and Life Sciences brought together a regional collaboration that was awarded one of only six "i6 Challenge" grants from the U.S. Department of Commerce. The BioGenerator will lead the implementation of this two-year grant, which will help to accelerate early innovations from the region's research institutions and entrepreneurs, making them ready to form new businesses, attract private funding, and ultimately create jobs. This effort represents a unique strategy to reduce barriers to commercializing innovations in very early stages of development.

#### FACILITIES AND INFRASTRUCTURE DEVELOPMENT

CORTEX (Center of Research, Technology, and Entrepreneurial Exchange): Many of the region's top-notch institutions in the biosciences, medical research and health care are concentrated within a relatively small, four-square-mile. These assets include: Washington University School of Medicine, Saint Louis University and its medical school, Barnes-Jewish Hospital and St. Louis Children's Hospital, and the Missouri Botanical Garden, which operates the world's most active research program in tropical botany. Another asset of the area is the Center for Emerging Technologies (CET) business incubator, which currently houses 28 high-growth companies.

#### **Core Initiatives**

Since 2001, St. Louis has grown from zero to nearly \$1 billion in life sciences venture capital under local management.

To take advantage of this concentration of research and development activity, the Coalition for Plant and Life Sciences brought together the research institutions that anchor the district, as well as other public and private stakeholders, to establish the Center of Research, Technology, and Entrepreneurial Exchange ("CORTEX"), a 501(c)(3) nonprofit organized to serve as the motivating force behind the successful development, promotion, and marketing of a robust bioscience neighborhood connecting these various institutions. The district sits on 250 acres of formerly industrial land bordered by the founding partners and seeks to spur innovation and collaboration by clustering life sciences companies. To date, development in the district includes:

- CORTEX One building, a \$32 million, 177,000 sq. ft. lab and office facility that is 97 percent leased. The building's anchor tenant is Stereotaxis, a NASDAQ device company that graduated from the CET incubator. Another primary tenant is Pfizer, which maintains its worldwide Indications Discovery Unit focused on repurposing existing compounds. The Pfizer unit also includes lab space for an innovative partnership with Washington University that allows industry and university researchers collaborative access to compound libraries.
- A privately developed \$40
  million, 140,000 sq. ft. building
  for relocation of Solae Company's
  world headquarters to CORTEX,
  which includes research and pilot
  production facilities.

 The \$170 million, 247,000 sq. ft. announced development of a new Shriners Children's Hospital.

In addition to the projects above, CORTEX has assembled several dozen additional acres of urban land for future development of biosciences facilities.

#### **CAPITAL FORMATION**

Since 2001, St. Louis has grown from zero to nearly \$1 billion in life sciences venture capital under local management. Much of this growth was triggered by three separate commitments of \$40 million each, organized by the Coalition for Plant and Life Sciences, from Washington University, the Danforth Foundation, and the McDonnell family. These commitments helped spur the growth of some of the following venture capital assets in the region.

Additionally, the Coalition for Plant and Life Sciences secured Brooke Private Equity advisors in Boston to help assess the viability of capital formation approaches that would assist in encouraging and maturing the region's bioscience industries. From this study, the Coalition helped to form the Vectis Life Sciences series of funds of funds. These funds are strategically managed to strengthen connections between local, St. Louis venture capital and well-established fund managers on the East and West Coast and will target larger, later stage investment rounds.

Scaling up successful commercialization efforts and growing the region's entrepreneurial management talent base are among the action steps in order to capitalize fully on St. Louis's tremendous potential for economic growth.

#### FOCUS ON PUBLIC POLICY

Federal Research Funding: For several years, Dr. William Danforth and the Coalition for Plant and Life Sciences led a national effort to reform and modernize the way the U.S. government funds agriculture research. After leading the national task force appointed by the U.S. Secretary of Agriculture, which issued a comprehensive set of recommendations, Dr. Danforth turned his attention to engaging leaders in research, higher education, commodities, and other stakeholder groups to support the creation of a National Institute of Food and Agriculture (NIFA), an arm of the USDA to fund agricultural science under a peer-review model similar to the NIH. As a result of several years' work, the creation of NIFA was included in the 2008 Farm Bill, and initial funding for NIFA occurred in 2009.

#### Missouri Statewide Policy & Strategy:

The Coalition for Plant and Life Sciences led development of a Missouri life sciences strategy (2003), which was funded by the Danforth and Kauffman Foundations; the establishment of the Life Sciences Research Trust Fund, which to date has appropriated \$40 million for building life science research capacity; and acquisition of \$22 million in tax credits from the Missouri Development Finance Board for CORTEX land acquisition. The Coalition for Plant and Life Sciences is a founding member of the Missouri Coalition for Lifesaving Cures ("Missouri Cures"), organized in 2005 to promote medical research in Missouri. In conjunction with Missouri Cures, the Coalition has been engaged in educating

the public about the promise of stem cell research and, with partners like the Missouri Biotechnology Association, the importance to science-based economic growth.

#### **METRICS & THE FUTURE**

While the St. Louis region has come a long way in building institutions to capitalize on its research base, the Coalition is committed to continuing to foster the interrelated and often interdependent elements necessary to establish a sustainable, robust ecosystem that encourages and supports substantially increased economic activity in the biosciences. Scaling up successful commercialization efforts and growing the region's entrepreneurial management talent base are among the action steps in order to capitalize fully on St. Louis's tremendous potential for economic growth, new firm commercialization, and job creation, and to establish its place among the leading regions in the 21st century economy.



#### **CONNECT**

#### TRANSCENDING CLUSTERS THROUGH COLLABORATION

CONNECT is leveraging its legacy of building relationships to form hubs at which multiple clusters intersect. The state of California recently awarded the region the title of "innovation hub" for three such areas – mobile health, biofuels and solar storage – each of which blends the legacy foci of more than one cluster.

#### **SPRINGBOARD**

Springboard is CONNECT's flagship program to create and sustain businesses. Springboard offers sector-specific mentoring and coaching from area CEOs, CFOs and other leaders participating in the Entrepreneurs-in-Residence program. Eligible companies range from those evaluating commercialization possibilities and working through technology transfer issues through those preparing to launch a new product, enter a new market, or partner with a company looking to come to the San Diego region.

#### **ACCESS TO CAPITAL**

While CONNECT does not invest directly, it is very active in organizing a number of programs to help start-ups and others obtain access to capital. These programs include:

**Deal Network:** Deal Network is a confidential database of individual investors who receive presentations from companies, such as Springboard graduates, that represent a strong investment in one of the region's core sectors. Network events are targeted and small to provide prospective companies with ample time to connect with potential investors.

**Venture Roundtable**: Venture Roundtable is the final step in a stringent process through which a small number of promising venture opportunities in the life sciences, clean technology, high-tech and software, cyber, and web sectors are presented to investors. Before a company can make it to the roundtable, their application is reviewed by CONNECT Entrepreneurs-in-Residence and judged by industry representatives who select about a half-dozen finalists.

**La Jolla Research and Innovation Summit:** This closed session allows the region's top scientists to share their research and discoveries with more than 100 venture capitalists from across the country.

#### **PUBLIC POLICY**

Recognizing the impact public policy has on regional innovation, in 2010 CONNECT opened an office in Washington staffed by a full-time employee focused on federal

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policy. A multitude of issues including intellectual property protection, federal research funding, regulation of the biotechnology, medical device and communications sectors, reimbursement for health care products and services, and patient privacy populate the agenda.

#### **METRICS & THE FUTURE**

An average of one new technology-focused company is started in the San Diego region each day. Since its founding 25 years ago, CONNECT has assisted more than 2,000 companies during their start-up mode. In 2009, a total of 319 companies were started, and more than 1/3rd (34 percent) were in the pharmaceutical, biotechnology and medical sector. Software accounted for nearly another third (31 percent)

with the remainder divided among communications (14 percent), computer and electronics (8 percent), environmental technology (8 percent), recreational goods (3 percent), and defense and transportation (2 percent). With regard to intellectual property, in the fourth quarter of 2009, innovators in the San Diego region applied for 1,526 patents, and a total of 730 were granted. And regarding venture funding, in 2009 the region did just under \$1 billion worth of deals (\$900 million), under the \$1.2 billion and \$1.9 billion totals for 2008 and 2007, respectively, though the decline was similar to that experienced both by other regions in California and throughout the nation due to the recession. The funding supported 107 total deals with an average deal of \$8.4 million.



#### KANSAS BIOSCIENCE AUTHORITY

To achieve its, goals, KBA operates six specific programs tailored to meet the needs of companies and researchers throughout the business cycle.

**Eminent Scholars:** The Kansas Bioscience Eminent Scholars Program is designed to recruit distinguished bioscience researchers to conduct their research and commercialization activities at Kansas research institutions. An Eminent Scholar is a world-class, distinguished and established investigator recognized nationally for research, achievements and ability to garner significant federal funding on an annual basis.

**Rising Stars:** The Kansas Bioscience Rising Stars Program helps to attract worldclass bioscience scholars to Kansas and to retain and advance the best and brightest bioscience scholars already working in the state. To earn designation as a rising star, researchers must have a proven track record of grant productivity and team leadership in a research environment. Honorees also must demonstrate an interest in applying research to commercial opportunities that build Kansas' bioscience economy.

**R&D Voucher:** The Kansas R&D Voucher Program provides funding to Kansas bioscience companies – in partnership with a Kansas research university, company, or institution – for proof-of-concept research and development activities and ancillary activities necessary to commercialize bioscience technologies. This program is designed to provide early-stage financing and commercialization support for high-potential but high-risk innovations.

**Matching Fund:** The Kansas Bioscience Matching Fund builds research excellence at Kansas' universities, research institutions, and bioscience companies in ways that will benefit our bioscience economy. Funds are available to match research dollars from federal, private, and other sources of funding. For example, large scale federal R&D projects at academic institutions, such as federally designated research centers that require matching funds, would qualify for fund support.

**Expansion & Attraction:** The KBA partners with the Kansas Department of Commerce and regional economic development organizations to facilitate the expansion and attraction of bioscience companies with strong growth potential. The KBA may offer qualifying companies direct financial assistance in the form of low-interest loans, grants, and bonds. It also works through its partners at the state and local levels to facilitate the offering of tax incentives and job training grants.

**Centers of Innovation:** The hub of the KBA's research capacity investment strategy is the Kansas Bioscience Center of Innovation program (Centers of Innovation). Through this program, the state strives to build world-class bioscience research centers in its

The KBA has committed to invest in eight nationally prominent venture capital investments funds that will establish operations in Kansas. The funds will raise more than \$200 million in external private capital and invest in Kansas bioscience companies.

research institutions and to assist existing and emerging bioscience industries. The Centers of Innovation focus on research and development in core technology areas that establish national and international research excellence and lead to high commercial payoff in new products and processes.

#### Specific initiatives include:

- The Kansas Alliance for Bioenergy and Biorefining (KABB) is uniting key industry players like Archer Daniels Midland with research and development efforts at the University of Kansas and Kansas State University. The center of innovation will use commercial biorefining to develop alternative fuels and chemicals; commercialize efficient biomass resources for cost-effective quality power; and improve carbon capture.
- Heartland Plant Innovations (HPI) is developing advanced technologies for gene discovery, trait validation and crop improvement in order to deliver new products and production platforms. The global research team associated with the center will focus on emerging commercial opportunities for wheat and sorghum, crops in which Kansas has world-renowned leadership and expertise. The center is a public and private collaboration of Kansas Wheat, Kansas State University, the University of Kansas, and many private investors.

The Center of Innovation for Biomaterials in Orthopaedic Research (CiBOR) is creating medical instruments, medical devices, and composite implants that will improve the practice of orthopedic medicine. The center will focus on commercial viability, conducting research requested by industry to meet market needs. It seeks to capitalize on the concentration of composites expertise found in Wichita due to the state's longstanding aviation industry leadership. Together with the KBA, CiBOR is jointly sponsored by Via Christi, one of the largest health systems in the Mid West, and Wichita State University, home of the National Institute of Aviation Research.

#### SUPPORT BUSINESSES

Heartland Bioventures: Heartland BioVentures (HBV) is the Kansas Bioscience Authority's business assistance program to facilitate risk capital investment in Kansas bioscience companies. The goal of HBV is to provide assistance to early stage bioscience firms to fundamentally address business, technology, management and other strategic issues critical to their success to help companies become venture-ready in the shortest amount of time possible.

#### CAPITAL FORMATION

KBA Growth Fund: The KBA has committed to invest in eight nationally prominent venture capital investments funds that will establish operations in Kansas. The funds will raise more than \$200 million in external private capital and invest in Kansas bioscience

#### **Core Initiatives**

Through June 2010,
KBA investments have
helped generate 1,195
new jobs; \$212.6 million
in capital expenditures;
\$86.6 million in new
research funding; and
\$48.3 million in equity
investments.

companies. These investments are designed to:

- Enhance the visibility of Kansas and, specifically, bioscience in Kansas, as a market for attractive venture capital opportunities nationally;
- Increase the likelihood that high growth potential bioscience companies in Kansas access growth capital to gain full scale commercialization;
- Encourage the development and growth of a vibrant Kansas-based private equity community; and
- Generate superior, risk-adjusted returns.

#### **METRICS & THE FUTURE**

Through June 2010, KBA investments have helped generate 1,195 new jobs; \$212.6 million in capital expenditures; \$86.6 million in new research funding; and \$48.3 million in equity investments. For every \$1 invested, the KBA has yielded

a return of \$9.41. Beyond these metrics, Kansas has been ranked as the 5th most vibrant bioscience economy in the nation.

In FY 2011, the KBA will commit \$55 million to advancing Kansas' national bioscience leadership focused on the following key areas:

- Enhancing Kansas cancer drug development capabilities to deliver cutting-edge treatments closer to home:
- Attracting additional eminent and rising star scholars;
- Providing hands-on business assistance and attracting significant new startup and growth capital to Kansas;
- Increasing commercialization of new technology by linking industry and academic in established centers of innovation; and
- Leveraging the magnetic impact of the animal health sector.



#### WISCONSIN TECHNOLOGY COUNCIL

#### FILLING THE FUNDING GAP

The state of Wisconsin has recognized the funding challenges faced by start-ups and has established investor tax credits and an angel investing infrastructure through the Wisconsin Angel Network (WAN) to help companies overcome these obstacles.

**Tax Credits:** In 2003, Wisconsin signed into law a 25 percent tax credit for angel and venture investors who invest in qualified new business ventures (QNBVs) in Wisconsin (Act 255). Due to the success of the program the pool of tax credits was increased to \$6.5 million for individual investors and to \$8 million for funds in 2010. In January 2011, the pool of 25 percent tax credits will increase to \$20 million for angel investors and \$20.5 million for qualified venture funds. In addition, the 25 percent tax credits will be transferable once per year through venture funds.

The Wisconsin Angel Network: The Wisconsin Angel Network was established in 2005 to increase the number of deals and amount-per deal of seed-stage equity investments in Wisconsin companies by connecting entrepreneurs with investors. The network's cofounder and chair is Lorrie Keating Heinemann. Both investor and entrepreneur members have access to the online deal-flow pipeline. Investor members include individual angel investors, angel funds and angel networks. WAN provides online resources to help entrepreneurs develop and refine their businesses, and entrepreneurs based in Wisconsin can update summaries of their business to the Deal-flow pipeline for free. In 2009, total investing by Wisconsin angel networks and funds increased by 50 percent to \$22.1 million in 56 deals. This continues a seven-year trend of expansion of Wisconsin's early stage investment market. The network maintains an online resource guide for entrepreneurs, providing on-demand educational videos, templates for business plan and investor presentations alongside other tools and links to useful websites. To make it easier for entrepreneurs to learn about the investment market and access these tools, WAN created an online step-by-step guide for entrepreneurs.

The Wisconsin Angel Network and a partner in Illinois launched a Midwest initiative to bring together angel networks and funds to co-invest in larger funding rounds. The Midwest co-Investment Network (MIN) is comprised of 17 angel networks and funds from six states. The group holds monthly conference calls and periodic meetings to discuss co-investment opportunities and collaboration. Thus far eight co-investment deals have been introduced to the group with six completing funding rounds with participation from MIN members.

#### STRENGTHENING ENTREPRENEURS

**Networking Events:** The Technology Council supports a number of networking events targeted to specific audiences. These include the Wisconsin Entrepreneurs Conference, the Wisconsin Early Stage Symposium and multiple events organized by the council's

The I-Q Corridor is a collaboration involving three states to leverage a legacy of success in technology and innovation.

membership division, WIN. There are WIN chapters in six regions of Wisconsin, all of which meet regularly to help educate entrepreneurs, investors, and others involved in the tech-based economy.

#### **Governor's Business Plan Contest**

(BPC): Established in 2004, this annual competition provides seed money and technical assistance to winning businesses. Contestants receive valuable feedback and guidance through the five-month, multilevel process and can win a grand prize of \$50,000 in seed funding. The BPC has attracted more than 1,800 entries in seven years, distributed more than \$1 million in total prizes, and helped start-up companies get established and grow. An important metric: Past finalists in the contest have raised at least \$20 million in private equity, according to a Tech Council survey of those companies. The contest also serves as a collector system for other regional contests. Examples include the Burrill Business Plan Contest at the University of Wisconsin-Madison, the Northeast Wisconsin Business Plan Contest, the Kohler Business Plan Contest at Marquette University, and, as of 2011, the Biz Starts College Business Plan Contest in Milwaukee.

#### FOSTERING COLLABORATION

I-Q Corridor: The I-Q Corridor is a collaboration involving three states to leverage a legacy of success in technology and innovation. Extending from Minneapolis and St. Paul east to Chicago, Wisconsin is located in the heart of a 400-mile corridor that contains some of the nation's best academic, technology and financial resources. Wisconsin seeks to capitalize on this linkage by adding to its

technology credentials, which include an \$8 billion biotechnology sector with 647 companies and nearly 24,000 employees, a medical devices industry that is ranked among the nation's top 10, an information technology sector estimated to employ 86,000 workers, and growing sectors in bio-energy, water technology and nanotechnology, three federal laboratories and \$1.2 billion in academic R&D. Specific actions being taken to leverage the strength of the corridor include periodic I-Q Corridor Investor Forums, creation of the Midwest co-Investment Network, collaboration with the MidAmerica Health Investors Network and the Midwest Research University Network, and exchange of "best practice" and policy information among key organizations in the three states.

#### **Wisconsin Security Research Consortium:**

The Wisconsin Security Research Consortium (WSRC) seeks to increase the amount of federal funding that flows to the state to support classified or non-classified defense and homeland security-related research by both academia and businesses. Established in 2005, the WSRC is governed by a board whose members represent the state's research institutions and companies with an interest in this sector. Additionally, WSRC offers associate membership to interested companies as well as service providers. The consortium's research interests span the homeland security sector and range from prevention and detection to emergency response and recovery. The consortium focuses on connecting business and academia to key federal agencies through WSRC's annual Research Rendezvous and also by hosting targeted Wisconsin visits by federal agency program managers.

Wisconsin continues
to gain jobs in the
information technology
and engineering
sectors. The state ranks
third nationally in
electromedical equipment
employment and 9th
among the states in
total medical device
employment.

University Research Park: Located in Madison near the UW campus, this former experimental farm is now home to 125 companies and more than 3,500 workers with average salaries that nearly double the statewide average. The URP recently created an urban incubator in downtown Madison, added an "accelerator building" for companies that have outgrown their start-up space, and approved plans for a second URP that will be as large as the original.

The Wisconsin Institute for Discovery and the Morgridge Institute for Research: Scheduled to open in December 2010, the twin research centers lie in the heart of the UW-Madison campus and will include scientists from biotechnology, chemistry, computer science, engineering and many other disciplines. The \$150-million WID-MIR building is the only facility of its kind in the Midwest and represents the merger of public and private funding to accelerate technology transfer.

#### **METRICS & THE FUTURE**

Several reports indicate Wisconsin's techbased economy continues to grow, even as other economic sectors struggle to regain their footing. The Tech Council's Vision 2020 updates thus far in 2010 show sharp increases in early stage funding activity. Total early stage investment through the first nine months of 2010 exceeded total investments in all of 2009 as well as 2008. Metrics related to academic R&D spending show Wisconsin 13th among all states, with patents per capita at 14th among the states.

A report by BioForward noted that over the past four years, while the rest of the state's private sector economy loss 3 percent of its total jobs, employment in the life sciences grew by 3 percent to nearly 24,000 jobs. Wisconsin continues to gain jobs in the information technology and engineering sectors. The state ranks third nationally in electromedical equipment employment and 9th among the states in total medical device employment. As noted above, the state continues to make progress in early stage/angel investment.

The Tech Council issued its biennial "white papers" report in July 2010 to help provide advice and ideas to policymakers, press and the public. This document mapped out strategies for improving the amount of available investment capital, enhancing Wisconsin's stock of human capital, speeding tech transfer and otherwise building a healthy infrastructure for businesses that may grow or expand in the state.

Immediate goals include the natural progression of the Wisconsin Angel Network to create the Wisconsin Venture Network, a companion organization that would focus on increasing the supply of capital beyond angel rounds. A framework of ideas, in part modeled on the experiences of other states, could lead to the development of a "fund of funds" model to help attract more venture fund activity to Wisconsin. Major groups listed above will continue to collaborate along a number of lines, including special events, outreach within the I-Q Corridor, presence at key national conventions and trade shows, and advocacy.

# Discussion & Conclusion



t first glance, it may appear that the six organizations profiled in this report have little in common. Each one has emerged from a unique economic legacy to develop a future-focused regional innovation strategy. Upon closer inspection, however, it is clear that the identification of and focus on strong regional assets is a defining strategy embraced by all of these high-performing organizations. The following section seeks to identify this and other common elements found across all or most of the organizations. Rather than be seen as an exhaustive or definitive list, this section strives to begin the process of identifying a core set of best practices that are integral for regional innovation.

**Build upon existing assets and strengths.** As noted above and exemplified in each profile, all six high-performing organizations have staked their claim on future success by building on vibrant legacies. These include digital technology (BioCrossroads), wireless technology (CONNECT), animal health (Kansas) and plant sciences (St. Louis). Leveraging existing strengths provides each organization with a solid foundation upon which it has built. Assets made possible through this approach including existing research expertise and capacity, a base of skilled employees, and an existing market that can support new entrants.

**Significant Involvement of Private Philanthropy:** Many of the organizations were founded and are still supported by significant regional philanthropic organizations. Examples include the Danforth Foundation's commitment to St. Louis, the Lilly Endowment's investment in BioCrossroads, and the Gund and Cleveland Foundation's backing of BioEnterprise. They are very interested in seeing their contributions support a self-sustaining effort rather than seeing themselves as the dominant funder, year-over-year, without measurable progress.

**Private Sector Leadership & Commitment:** Four of the six organizations profiled were organized and directed by private sector sources, and all six organizations enjoy the strong backing of their larger stakeholder community, especially the private sector business community. Private sector leadership or, at a minimum enthusiastic and engaged involvement – is an essential element for attaining high-impact regional innovation. Absent a formidable private sector commitment, public sector resources can only do so much. Initiatives and programs must be tailored to address the needs of the business community, and this community must be regularly engaged to understand such wants and needs. Additionally, a robust private sector and community commitment provides each organization with the resources needed to offer high-quality programming and networking. For example, CONNECT's multiple programs and resources, while organized by the staff, are put on by a cadre of thousands of volunteers.

**Focus on Capital Formation**: Despite their different structures, all six organizations recognize the importance of raising capital to support regional innovation. Most of the organizations do so directly, and all seek to attract private capital from funders both within and outside of the region. For many of the organizations, the amount of private capital raised and invested is a critical metric of success. The organizations embrace a

#### **Discussion & Conclusion**

All six high-performing organizations are focusing their efforts in high-growth and future-focused sectors.

number of specific tactics to support capital formation and access. These include direct development of funds, as we see with BioCrossroads, BioEnterprise and KBA; support for angel investing networks in Wisconsin; and convening meetings and conferences to connect start-ups with investors, as is done by CONNECT. With continued challenges to government financing at all levels expected for the foreseeable future, this focus on private capital is critical.

**Identifying and Advancing High-Growth Niche Strengths:** All six high-performing organizations are focusing their efforts in high-growth and future-focused sectors. Four of the six focus exclusively on the life sciences, and the remaining two (CONNECT and Wisconsin) focus on multiple technology related sectors that include the life sciences. Transformative change and community renewal necessitates a focus on high-growth and future-focused sectors.

Beyond the practices described above, it is worth noting one additional similarity between the two publicly-established and funded programs – KBA and the Wisconsin Technology Council. Each of these programs clearly seeks to leverage the strengths of their respective university research systems. Kansas, in particular, supports an eminent scholars programs that helps attract and sustain world-class researchers, a program deployed in other states such as Georgia. Wisconsin places a distinct emphasis on the state's university system and associated strengths. Furthermore, both programs focus on leveraging their regional academic resources and capacity to drive investment and growth toward focus areas.

Finally, it is worth noting the importance of both a strong local vision and plan, along with dedicated and experienced local leadership. Each of the organizations profiled is managed by a team of highly skilled professionals. The president/CEOs all have deep community ties and sector knowledge. Also, all of the boards – while some are larger than others – include high level executives of the area's leading stakeholders. Whether funded and organized by government and/or private sources, all of the organizations operate with a distinctly entrepreneurial mindset.

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he purpose of the July 2010 meeting was to convene high-performing regional innovators to identify best practices and looming challenges, and to explore ways to better share their experience and learning. Additionally, there is interest in helping new entrants in other regions to take on similar efforts by providing a validated set of best practices upon which they can seek their own paths for economic renewal and transformation.

Going forward, an issue for consideration by each of the six organizations, and perhaps others of similar purpose, is the benefit that could be attained through more regular interaction and engagement. Ultimately, all six organizations possess a powerful and high-demand asset – tangible and validated regional innovation success stories – that need to be better understood by policymakers tasked with charting national, regional, and local directions. These organizations are demonstrating that progress through regional innovation works and must be recognized as an indispensable component of the economic recovery and growth agenda.