Approved: February 5, 2009

Date

MINUTES OF THE HOUSE ECONOMIC DEVELOPMENT AND TOURISM COMMITTEE

The meeting was called to order by Chairman Lana Gordon at 3:30 p.m. on February 2, 2009, in Room 711 of the Docking State Office Building.

All members were present except:

Representative Don Myers- excused Representative Valdenia Winn- excused

Committee staff present:

Jason Long, Office of the Revisor of Statutes Doug Taylor, Office of the Revisor of Statutes Reed Holwegner, Kansas Legislative Research Department Ann Deitcher, Committee Assistant

Conferees appearing before the committee:

Stan Ahlerich, President, Kansas, Inc. Jerry Paytas, GSP Consulting, Pittsburgh, PA

Others attending:

See attached list.

Stan Ahlerich, President, Kansas, Inc. Jerry Paytas, GSP Consulting, Pittsburgh, PA

The Chair called on Stan Ahlerich who in turn introduced Jerry Paytas who gave and evaluation of the Kansas Bioscience Authority as prepared by his Consulting Corporation. (<u>Attachment 1</u>).

Mr. Paytas explained to the Committee how the Kansas Bioscience Authority (KBA) was created by the Kansas Economic Growth Act of 2004 with the sole purpose of advancing Kansas' leadership in bioscience.

As the state's largest-ever commitment to expanding Kansas' research capabilities, the KBA is promoting innovation and encouraging company formation that will create high-paying jobs for generations to come.

The approximate \$581 million initiative is charged with:

- Building world-class research capacity;
- Fostering the formation and growth of bioscience startups;
- Supporting expansion of the state's bioscience clusters; and
- Facilitating industrial expansion and attraction.

Saying that the KBA was an independent entity of the state, Mr. Paytas said that it is governed by an 11-person board of directors comprised of local and national leaders in industry and academia.

GSP Consulting was contracted by Kansas, Inc. to conduct this evaluation as an objective, external reviewer. Comments and clarifications provided by the KBA have been footnoted where they have appeared in this report. All other findings and conclusions in this report are the opinions of GSP Consulting based on verification from multiple sources, including interviews, data analysis and benchmarking.

Mr. Paytas pointed out that the evaluation and assessment conducted by GSP Consulting fell into four categories:

- 1. Is the KBA adhering to its statutory obligations?
- 2. Has the KBA initiated its statutorily defined programs?
- 3. What has been the initial outcomes of the KBS's investments?

CONTINUATION SHEET

Minutes of the House Economic Development And Tourism Committee at 3:30 p.m. on February 2, 2009, in Room 711 of the Docking State Office Building.

Saying that if all companies were still up and going after 4 or 5 years, they weren't taking enough risks. He was convinced that the KBA needed to balance its due diligence with a reasonable level of risk-taking so that the KBA's due diligence, review standards and staff capacity were not a barrier to the development of industry-university partnerships in to the state of Kansas.

One of the things that has been suggested was the nomination of more bioscience entrepreneurs to the Board of Directors. Saying that the Governor and the Legislature, not the KBA, control the nomination and appointment process, he still felt there should be a target goal to have at least three entrepreneurs who founded and grew a bioscience firm on the Board of Directors. In order to reach this target goal, the Governor, the House and the Senate should each nominate one entrepreneur to the board when the next reappointments were made.

Questions and answers followed.

The meeting was adjourned at 4:30 p.m. The next meeting is scheduled for Wednesday, February 4, 2009.

Evaluation of the Kansas Bioscience Authority:

2004 to 2008

Executive Summary

Prepared by

GSP Consulting Corporation Pittsburgh, PA www.gspconsulting.com

Prepared for



December 2008

Economic Development & Tourism Date: 2-2-09
Attachment # /-/

Preface

Through the passage of the 2004 Kansas Economic Growth Act, the Governor and Legislature emphasized the state's focus on the growth of entrepreneurship and biosciences to stimulate the Kansas economy. These bold initiatives included the creation of the Kansas Bioscience Authority (KBA), an independent entity designed to guide the state's investment of over \$580 million dollars during the next 15 years in the bioscience industry. The Governor and Legislature also recognized the importance of a formal assessment process to determine the effectiveness of these initiatives, and Kansas, Inc. was given this responsibility.

This evaluation is not an audit of the KBA – which could be considered to be more of an academic and scientific research process designed to unambiguously identify and measure the results of government interventions in society. Rather, a Kansas, Inc. evaluation, by design, provides a holistic assessment of an economic development initiative – intended to capture the overall direction, sustainability and success of an initiative as envisioned by its initializing statute. Thus, the evaluation process produces dynamic input to the complex, interactive process that is government decision-making. This process results in a source of information that can assist the decision-making and management process for resource allocation and program improvement, while providing for overall accountability in government. Based on this premise, this evaluation makes several well-reasoned conclusions and recommendations that should be considered.

Given the uniqueness of the KBA, Kansas, Inc. designed the scope of this evaluation to be flexible and responsive to the needs of both the KBA and its stakeholders. Through this process, Kansas, Inc. utilized the services of GSP Consulting, a nationally-recognized firm with subject matter expertise on a programmatic-, state- and national-level in order to provide the systematic gathering of verifiable information and demonstrable evidence required to produce documented results and best practice comparisons. Kansas, Inc. commends the efforts of both GSP and KBA leadership to provide meaningful information to decision-makers.

While beyond the scope of this current evaluation, following the completion of this report Kansas has seen improved rankings relative to several bioscience indexes and the award of the National Bio and Agro-Defense Facility (NBAF) to the state. The KBA should be commended for their efforts.

Limited resources require focused efforts with measurable results. We must maintain focus on our core competencies that provide both inherent and emerging economic strengths within today's integrated global economy. These strengths, set in a focused environment for opportunity can contribute to the sustainability and growth of our economy. The bioscience industry is one of those strengths. This evaluation provides analysis regarding several conclusions and recommendations relative to the KBA that when implemented, will serve the state well in future years.

Stan Ahlerich President Kansas, Inc.

Executive Summary

Overview

The Kansas Bioscience Authority was created in 2004 by the Kansas Economic Growth Act and was projected to be a 15 year, \$581 million initiative focused on growing the bioscience sector in the state of Kansas. This report is an evaluation of the Kansas Bioscience Authority (KBA) that was conducted by GSP Consulting on behalf of Kansas, Inc.

About the KBA1

The Kansas Bioscience Authority (KBA) was created by the Kansas Economic Growth Act of 2004 with the sole purpose of advancing Kansas' leadership in bioscience.

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 for generations to come. The approximately \$581 million initiative is charged with:

- Building world-class research capacity;
- Fostering the formation and growth of bioscience startups;
- · Supporting expansion of the state's bioscience clusters; and
- Facilitating industrial expansion and attraction.

The KBA is leveraging its funds to attract additional federal and private-sector support that could boost the total investment in bioscience in the state to more than \$5 billion.

Governance

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.

Vision and strategy

In September 2007, the KBA board of directors adopted the following vision and strategies for the authority:

Kansas is the preeminent bioscience center in the Midwest, serving healthcare, energy, agricultural, animal health, biomaterial, and national–security needs throughout the nation and around the world by virtue of its excellent research, education, and vibrant industry clusters.

The KBA is focused on expanding Kansas' research and industry strengths to:

 Increase the quantity of high-quality research that has commercial relevance for Kansas;

¹ This material is sourced from the website of the Kansas Bioscience Authority. Accessed from http://www.kansasbioauthority.org/about_the_kba/ on November 11, 2008.

- Expand the availability of investment capital needed to form and grow new companies;
- Grow and nurture an increasingly experienced pool of entrepreneurial management talent supported by organized systems of services and networking;
- Expand the availability of capital and assistance to support product innovation in established companies; and
- Facilitate bioscience corporate expansion and attract new-to-Kansas bioscience corporate activity that grows and strengthens specific clusters of excellence.

Programs

Through the KBA and related initiatives, Kansas offers comprehensive support for world-class research, commercialization, and business expansion to accelerate company growth and job creation in the state.

Partners in growth

The KBA's motto recognizes that its public, private, and academic partners are often at the forefront of efforts to expand bioscience R&D, foster the formation and growth of startups, and lead corporate expansion and attraction efforts. The KBA works with partners statewide to pursue specific bioscience growth opportunities, as well as to implement scalable programs developed for use by a broader range of constituents.

About this Evaluation

GSP Consulting was contracted by Kansas, Inc. to conduct this evaluation as an objective, external reviewer. Kansas, Inc. and the KBA had the opportunity to review a preliminary report to identify any factual errors. Comments and clarifications provided by the KBA have been footnoted where they have appeared in this report. All other findings and conclusions in this report are the opinions of GSP Consulting based on verification from multiple sources, including interviews, data analysis, and benchmarking.

The performance of an evaluation, at a designated time (after 3 years), is one of many unique attributes contained in the legislation that created the KBA. Other attributes such as the funding model, board composition, and independence from direct state control make the KBA a unique addition to the national fabric of bioscience focused technology-based economic development programs.

The KBA has operated under two distinct phases that it has characterized as:

- Startup: Board operated with no employees (April 2004–October 2006)
- Operational: Employees hired, implementation of key operational policies and procedures, initiation of statutory programs (October 2006–June 2008)

Our analysis considers these two phases as outlined by the KBA; however, this evaluation places emphasis on the current organizational structure and reflects current or ongoing operational dynamics.

The legislation that created the KBA was signed into law more than 4 years ago; the KBA in many regards is still a new and evolving organization. As a result there are several areas we have evaluated that are still too early to fully assess.

The evaluation conducted by GSP Consulting has included the following steps:

- Interviews with stakeholders representing a variety of categories (as demonstrated on the chart below),
- · Review of information provided by the KBA as part of a Legislative Post Audit,
- · Review of board materials,
- Review of operational documents,
- · Benchmarking bioscience organizations and initiatives in other states,

- · Review of the organization's website and KBA focused publications, and
- · Discussions with staff.

The following chart demonstrates the categories of individuals interviewed as part of this evaluation. The individuals interviewed were identified based on contacts provided by Kansas, Inc., the KBA, and GSP's independent identification Kansas bioscience companies and researchers. The list of candidates was reviewed with Kansas, Inc., but the final selection of who was interviewed was determined by GSP. In some cases the interviews included individuals who have had multiple interactions with the KBA in mixed roles, as board members, clients and partners. The table below classifies them by their primary relationship. In addition many of the companies have submitted multiple applications to the KBA, such that among the clients and partners interviewed actually represent 26 different applications to the KBA.

Table 1: Categories of Interviewees

Category	Interviews Completed
Client	11
Current Board Member ²	4
Former Board Members	2
Not Served / Funded	3
Officials	9 - 4 - 1
Partners (include some clients)	8
Staff	5
Grand Total	42

GSP has not included direct quotes in this evaluation and we have reported criticisms only when they have been confirmed by several sources, or objective data. These restrictions reflect the fact that respondents spoke with GSP under a promise of confidentiality. In addition, the small size of the bioscience community in Kansas, combined with the limited track record of the KBA would make it too easy to associate individuals with specific quotes or comments about programs. It also ensures a level of objectivity so that the evaluation is not swayed by a few persuasive or extreme friends or critics.

² Additional current and former board members were approached but were not able to be interviewed

Key Issues

The evaluation and assessment conducted by GSP Consulting falls into four categories:

- 1. Statutory/ Agency Assessment
- 2. Funding Mechanism Assessment
- 3. Funding/ Service Recipient Assessment
- 4. Partner Organization Assessment

We have structured this report to follow those categories although some overlap of findings was necessitated. Three fundamental questions are at the core of this evaluation:

- 1. Is the KBA adhering to its statutory obligations?
- 2. Has the KBA initiated its statutorily defined programs?
- 3. What have been the initial outcomes of the KBA's investments?

On the first question, the Kansas Economic Growth Act of 2004 (KEGA) provided a broad mandate and considerable flexibility for assisting the bioscience industry in Kansas. The statute specified the following mission:

...to make Kansas the most desirable state in which to conduct, facilitate, support, fund and perform bioscience research, development and commercialization, to make Kansas a national leader in bioscience, to create new jobs, foster economic growth, advance scientific knowledge and improve the quality of life for citizens of the state of Kansas.³

At the current time, the KBA has implemented a range of programs and activities that are making progress toward all of these goals.

KEGA provides a broad mandate for the KBA, but it also directly specifies a number of programs and activities. On the second question, the finding is that the KBA has initiated all of the statutorily defined programs. Additional details on the progress achieved in each specific

³ Kansas Economic Growth Act of 2004. 73-99bo2 (5).

program date are provided in the section on the Funding Mechanism Assessment beginning on page 38.

Statute	Program	
74-99b09. (27)	Heartland BioVentures	
74-99b61-68	Kansas Bioscience R&D Voucher	
74-99b81-88	Kansas Bioscience Matching Fund	
74-99b51-60	Bioscience Tax Investment Incentive: Net Operating	
	Loss Reimbursement)	
74-99b09.(6) to (12) and (15) to	Kansas Bioscience Eminent Scholars	
(16)	Kansas Bioscience Rising Stars	
	Collaborative Biosecurity Research Initiative	
	Collaborative Cancer Research Initiative	
	Kansas Bioscience Centers of Innovation	
74-99b09. (15) and (16)	Kansas Bioscience Expansion & Attraction	

In reference to the third question, the KBA's investments and activities have generated a number of positive benefits and outcomes for the state of Kansas. As of June 30, 2008, the KBA reported 938 jobs created, based on funds paid of \$16.2 million and total funding commitments of nearly \$56 million. The cost per job based on the funds paid is \$17,342, which is an impressive indicator for a program that focuses on bioscience development. Furthermore the KBA has leveraged \$81,983,108 in capital, \$3,674,384 in R&D funds realized and equity investment of \$9,199,614.4 The total net investment of \$94,857,106 represents a return of \$5.80 for every \$1.00 in funds paid. These are results that validate the bold commitment made by Kansas in the creation of the KBA.

⁴ All data in this paragraph regarding performance and results was collected from the KBA Outcomes and Pipeline reports.

Phases of the Kansas Bioscience Authority

Startup Phase

The KBA has followed a pattern of development not unlike many other technology-based economic development programs in the country. Most such programs are created through a legislative vehicle that is built on compromise between competing interests. Following the passage of the legislation a board must be formed, governance protocols established, staff hired, and programs initiated. The pressure to prove the value of the new initiative is intense as elected officials and key stakeholders are eager to serve the pent up demands for funding or programmatic support.

Much like a start-up company the newly formed Kansas Bioscience Authority was marked by a period that involved an urge to define its value in a short time period. Value in this case was defined as 'wins' that demonstrate for the state legislature, governor and other stakeholders that the commitment to launch this initiative was a sound decision. This time period was marked by a focus more on getting deals done rather than focusing on process and protocols. The work of the KBA was Board driven and staffing support was outsourced.

Startup Timeline

• Legislation Passed: April 2004

• Board Formed: August 2004

• First Board Meeting: September 2004

• First Application: August 2005

• First Funding Decision: April 2006

Operations Phase

Continuing the start-up company analogy, the next phase of the KBA's development can be described as a period of Refining the Value. Much like a company the KBA's early accomplishments were met with increased attention and awareness. As a result, the emphasis needed to be placed more on the structure of the organization. It is during this period that the KBA has been focused on implementing policies, processes and protocols for investing their dollars. The work of the KBA is now more staff driven with the board still playing a significant role in the decision-making and policy setting.

The KBA provided a detailed timeline of the activities and accomplishments of the Operations Phase. It is included in Appendix 1: Operations Timeline Provided by the KBA on page 70.

Major Findings and Recommendations

Overall, GSP Consulting believes that the KBA is a unique economic development entity that is providing significant support to the growth of the biosciences in Kansas.

We have presented the recommendations in terms of three categories. The first category, Priority Recommendations, reflect critical issues in current operations that must be addressed. The second category, Maintain Progress and Monitor, includes issues from the startup phase that the staff and board have largely resolved but require additional effort and monitoring. The third category, Strategic Choices, reflect issues where there are not clearly right and wrong answers, but which alter the strategy of the KBA.

Priority Recommendations

1. Preserve the Funding Mechanism (See page 60)

The funding mechanism created in the Kansas Economic Growth Act is both unique and effective; Kansas should most emphatically NOT change the funding mechanism. No other state program has the kind of stable, dedicated, long-term funding that Kansas has devised. Too often, government budgets over-react to short-term financial crises by decreasing, delaying or discontinuing the funding for programs that provide longterm security and prosperity for the future. Kansas has avoided this scenario with the off-budget diversion of payroll taxes for 15 years. In establishing the KBA, Kansas has also implemented a comprehensive, flexible, and well-balanced strategy. Other states have invested similar amounts, but usually for the purpose of meeting a short-term infrastructure need, or jump-starting a specific technology niche, such as stem cell research or fuel cells, that may limit the ability of the state to adapt its strategy. In other cases, states have been so broad that their investments are dispersed across many sectors and they don't get any feedback and multiplier effects from those investments. The goal of the program was to provide the state of Kansas with another major sector comparable to agriculture, aviation or oil. Accomplishing that task will require stable, patient investment that is unlikely to happen with a legislatively appropriated budget.

2. Monitoring and Evaluating Progress (See page 61)

The process of legislative appropriations however serves a useful function in protecting the public's money. However, Kansas also has a strong tradition of research-based evaluation, through the Legislative Division of Post Audit and Kansas, Inc. These resources provide Kansas legislators with a higher quality and greater depth of evaluative information than is

available to legislators in other states. The KBA currently provides annual reports to the Governor and the Legislature. In addition, the KBA has produced the Bioscience Index to measure its progress and that of the bioscience economy in Kansas. Unfortunately, many skeptics will not be convinced unless the data and analysis are produced by a neutral, objective source. In order to monitor the progress and performance of the KBA, GSP recommends the following evaluation plan for consideration by Kansas, Inc, KBA, Legislative Division of Post Audit, Department of Labor and Department of Revenue:

Once every four years:

- 1. Conduct a professional, objective and comprehensive program evaluation. The evaluation should follow a structure similar to the current RFP, but since the KBA should have a greater track record, subsequent evaluations should include the following:
 - a. A survey of bioscience firms and researchers in Kansas (funded and not funded by the KBA).
 - b. Analysis of KBA Impacts
 - Working with the Kansas Department of Labor to compare job creation in a matched sample of KBA clients and non-client bioscience firms.
 - ii. Analysis of KBA inputs (staff, funds) and performance outcomes (jobs, capital, R&D, etc.).
 - c. Benchmarking program performance in other states.
 - d. Operational assessment to include review and approval processes as well as level of staff time devoted to clients.

Annually:

- 2. Review annual outcomes and funding distributions
 - a. The Department of Revenue currently tracks the quarterly payroll and withholding taxes to determine the distributions to the KBA. Working with the Department of Labor it should not be a great deal of additional effort to analyze the year-to-year payroll growth for the overall Bioscience sector and to summarize how many sectors within the Biosciences increased or decreased payroll.
 - Compare inflation-adjusted payroll growth of bioscience sectors to the level of KBA investment and activity (based on KBA commitments and funds paid).
 - ii. Compare inflation-adjusted payroll growth of bioscience sectors to the U.S. growth rate for each sector.
 - iii. Note: Hospitals must be separated or excluded from the performance evaluation because the growth of hospital payrolls are indirectly impacted by KBA investments, therefore their employment gains or

losses should not reflect positively or negatively on the KBA's performance.

- b. Measure the progress of biosciences as an independent economic sector. Ideally some measure of the contribution to state Gross Domestic Product (GDP) could be used to compare the development of the Biosciences to other leading sectors in Kansas such as Oil, Aviation and Agriculture. Unfortunately, the BEA does not estimate GDP with sufficient industry detail to compare these sectors. Every five years the Economic Census provides estimates of the value of receipts and shipments, but this data is not frequent enough to be useful. Payroll growth is a useful proxy as the bioscience sector is composed of many service industries in which there is a strong correlation between value-added, revenue and payroll. For example Bioscience receipts and payrolls are 16 percent and 17 percent of Aviation receipts and payrolls respectively. The Department of Revenue could track the Bioscience share of total Kansas payroll and compare it to sectors such as Aviation, Oil and Agriculture.
- 3. Nominate more Bioscience Entrepreneurs to the Board of Directors (See page 35)

The Governor and the Legislature, not the KBA, control the nomination and appointment process. There should be a target goal to have at least three entrepreneurs who founded and grew a bioscience firm on the Board of Directors. In order to reach this target goal, the Governor, the House and the Senate should each nominate one entrepreneur to the board when the next reappointments are made.

4. Address Communication Gaps (See page 32)

Some of the critiques of the KBA included a lack of awareness around what is going on. Stakeholders should receive a consistent set of communications on what the KBA is doing and supporting. The newsletter provides one mechanism, but several stakeholders claimed to have never seen the newsletter, so staff should insure that its distribution is reaching the key stakeholders.

The KBA's website is constantly updated regarding current projects, board meetings, programs, applications and recent newsletters and articles. This is achieved through annual KBA progress reports, website updates, e-news blasts, e-newsletters, and monthly updates of events. Furthermore, the KBA has conducted seven stakeholder meetings around the state:

- Wichita, September '07 and April '08
- Garden City/Dodge City October '07
- Topeka January '08

- Hays/Colby May '08
- Overland Park June '07 and July '08

The KBA has also conducted extensive outreach through media releases, interviews, and Op-Eds across the state and nation. The NBAF effort in particular has been the focus on significant communications efforts including regular electronic communications, extensive media outreach, an NBAF in Kansas website, national radio interviews, and specialized educational materials, fact sheets, and collateral pieces. These efforts are not limited to Kansas, but also include significant outreach at the BIO Convention in 2006, 2007 and 2008.

The KBA has also worked extensively with legislators in Topeka and D.C., including the inaugural Kansas Bioscience Day at the Capital and distributing the KBA financial audit and annual report. The KBA President/CEO and staff have provided frequent testimony at legislative hearings and have been meeting individually with members as well.

The outreach and communication efforts described above are valuable and absolutely appropriate activities. Where the KBA is attracting criticism, is in regards to more personal and one-to-one communications. The KBA publishes a program guide and a website, but these documents don't provide all of the answers and partners and clients also need face time to improve their understanding of eligibility issues and application guidelines. Similarly, the website, email blasts and annual reports provide a great deal of information about KBA activities and clients, but it does not completely address the need that partners have to be informed when the KBA interacts with joint clients. Partners should receive **personal** notification on KBA discussions with joint clients as well as personal updates on the status of any joint clients, before the information is distributed to the general public via press releases or email blasts.

5. Increase R&D Voucher Activity (See page 44)

These projects should not require a lengthy review, nor do they require significant staff resources and there are many positive impacts from these projects, so the KBA can and should be able to greatly increase the level of activity. Comparable programs have funded at least twice as many industry–university commercialization projects within their first four years.

Ongoing efforts to develop and commercialize new products and services, such as those supported by the R&D Voucher program should be enhanced and increased in volume. Since these projects are risky, volume is needed to produce results. However, these projects should not require significant staff effort for due diligence or mentoring when there is a university partner because the funding is limited to \$100,000 to \$500,000; matching funds are required so the financial commitment of the partners and the approval process of the university also provide validation of the project. Furthermore,

one of the goals of these kinds of programs is to promote more cooperation between the private sector and universities, so these projects achieve some success even if the resulting technology is not viable. In fact, the KBA should expect that a portion of these projects will fail, but that the partners will learn from that failure and do better next time. That is part of the reason why volume is needed and why so many of these programs in other states limit the amount of these awards to the same range provided by the KBA (\$100,000 to \$500,000). The KBA needs to balance its due diligence with a reasonable level of risk-taking so that the KBA's due diligence, review standards and staff capacity is not a barrier to the development of industry-university partnerships in the state of Kansas.

Based on our benchmarking of programs similar to the R&D Voucher program, the KBA should be able to support 20–30 projects annually with two full-time staff supported by external reviewers and support staff. This staffing level does not include staff or volunteers that may be involved in mentoring and developing bioscience firms. With an estimated 440 to 980 non-hospital bioscience firms, as well as hundreds of bioscience researchers at the universities, as well as an unknown number of bioscience entrepreneurs. If we then assume that there are only 1,000 to 1,500 eligible candidates (companies, researchers and entrepreneurs) then the KBA should have a pool large enough to find 20 worthy R&D Voucher projects each year for the next five years, and still have only funded ten percent of the potential in Kansas, assuming no additional demand is created. This evaluation recommends a more streamlined approval process that could boost the number of R&D Voucher awards.

Approval should be competitive based on the reviews by external experts and staff approval, and the understanding that the universities and their partners are also assuming some risk and the universities in particular have internal processes for approving research activity that provides some validation of its scientific merit. Projects that have no university partner may have to be treated differently. The board should authorize staff to award up to \$2 million per quarter in this program for projects that have a university partner without prior board approval. The increased level of activity and experience should generate better proposals and projects in the long-run and it will provide a greater incentive for university researchers to seek out industry partners and vice versa.

Maintain Progress and Monitor

These recommendations reflect issues from the startup phase that have largely been resolved, but which require vigilance and additional effort in order to maintain the progress achieved.

1. Increase Transparency of Board Operations (See page 35)
The current policy states:

This [conflict of] interest shall be set forth in the minutes of the Authority, and no Director, employee or other agent or advisor having such interest shall participate on behalf of the Authority in the authorization or any such contract or transaction.

The KBA should implement a clear universal recuse and excuse policy for any board member for both discussions and votes with any project where there is a conflict of interest. A suggested revision:

This [conflict of] interest shall be set forth in the minutes of the Authority, and no Director, employee or other agent or advisor having such interest shall participate on behalf of the Authority in the [discussion] or authorization or any such contract or transaction.

2. Monitor Staffing as Activity Increases (See page 33)

The KBA has very few staff for the level of financial commitments compared to the peer organizations that were reviewed. There is little interest in seeing the KBA become a large, heavily staffed operation, but it should maintain a reasonable staff level, for example, 1 FTE per \$5 million in active investments. This would keep the KBA as the leanest of the benchmark organizations. The KBA is currently close to this benchmark, but as staff are added and the KBA's resources expand, they should avoid becoming so lean that they are unable to provide due diligence without slowing innovation in the bioscience sector. If there are 50 worthy projects but the KBA only has staff to manage 20, then there is need for more staff. GSP Consulting believes that the KBA understands this very well, but that critics of the KBA do not. The KBA is not overstaffed at the current time and it should add staff as the volume of activity grows to remain near the 1 FTE per \$5 million in active investments benchmark.

3. Maintain Focus on High Quality Projects (see page 30)

The KBA's balance between the quality and level of innovation on the one hand and the sectoral and geographic interests on the other, are on target. The KBA should continue to fund the highest quality projects first, with geographic balance a secondary consideration. The KBA should maintain more balance between industry projects and big tickets like Science Parks and NBAF that have a long impact horizon.

Strategic Choices

These recommendations address issues that have no clear right or wrong answer. They are, as we have described, strategic choices which involve tradeoffs that have to be considered and managed by the KBA and its Board.

1. Need for Balanced Strategy (See page 26)
The KBA has a balanced strategy – as dictated by statute and supported by the reasons outlined below. The early emphasis on attracting private sector firms has given way to a greater emphasis on university and nonprofit led projects that have a longer payback time. Since each strategy, attraction, commercialization and entrepreneurship have different strengths and weaknesses; a strong bioscience strategy has to encompass them all. There are no clean guidelines for how to allocate the effort between these programs. In order to maintain the flexibility of the KBA, we have presented the following as a guide for the ongoing strategic choices the organization will have to make. More information is provided on page 26.

Table 2: Reasons for a Balanced Strategy

Strategy	Pro	Con
Attraction	 Produces jobs impacts within 3 years. Easiest to attribute credit for the result. 	 Can only respond to opportunities. Limited number of projects per year with significant competition. Fewer local B2B links. Management and labor is oriented to corporate ladders not local market.
Commercialization	 More local B2B links. Many indirect benefits. Can create entire new industries that provide long term competitive advantage. Requires moderate staff effort. 	 Job impacts not realized for 2-4 years. Each project is risky; need volume to generate impact. Longer timeframe blurs the link between assistance and success.

Strategy	Pro	Con
Entrepreneurial	 Most local B2B links. Entrepreneurs never really "fail" if they learn and try again – initial assistance can provide long-term impact. Entrepreneurs beget more entrepreneurs – initial assistance is magnified. 	 Job impacts not realized for more than 3 years. Significant staff effort is required. Each project is risky; need volume to generate impact. Longer timeframe blurs the link between assistance and success.
Research Capacity Building	 Has the potential for extremely large returns. Promotes diversification and adaptation that can sustain the economy during periods of transition. 	 The return on investment is often measured in decades. It is difficult to sustain these investments on only soft returns such as partnership development and new collaborations.

2. Managing Mission Creep

While individuals or some groups expressed definite preferences, across the categories of the board, staff, officials, clients and partners there were no strong or consistent opinions. However GSP felt that these issues may warrant further consideration in the evaluation particularly as it relates to the tension between the need to maintain focus versus addressing the broad range of needs that intersect with the biosciences.

 For example, what should be the KBA's level of involvement in the Bio-Energy efforts?

The KBA has recently formed a sub-committee to explore the opportunities and their role in Bio-Energy. In many states this role would be assigned to a policy group such as the Kansas Energy Council (KEC). We recognize that a set of energy policy and activity recommendations has been developed by the KEC and public comment period opened on September 11th. One of the recommendations requests that KBA set aside a portion of its funding for R&D focused on biomass-fueled electric generation. Such a requirement coming from a third-party would set a precedent that should concern anyone associated with the KBA's creation and future success. Such actions will over time limit the KBA's ability to achieve success through a strategic focus on the biosciences.

The KEC at its meeting on August 13, 2008, advanced 15 recommendations for further discussion and public comment. The second recommendation is reproduced below:

2. Encourage the Kansas Bioscience Authority to allocate some of their funds to research and development related to biomass–fueled electric generation, including the analysis of carbon footprint.⁵

The KBA responded to the initial draft of this evaluation with the following comment:

With respect to bioenergy, the KBA has developed an advisory committee chartered with developing a clear investment approach in the bioenergy realm. Neither this committee, nor the KBA board of directors has endorsed in any way the stated recommendations of the Kansas Energy Council."

However, according to the KBA's website, they awarded \$300,000 to Kansas State University on October 28, 2008 for the following project:

Kansas State University, Manhattan, Kansas

The KBA awarded \$300,000 to Kansas State University to create a county-level inventory of biomass resources such as agricultural crop residues; grain and oilseed crops; and herbaceous energy crops. As part of the KBA's development of a strategic plan to advance the state's national bioenergy leadership, this data will highlight opportunities for the state as its bioenergy sector expands to help the country meet the National Renewable Fuels Standard, which federally mandates a significant increase in non-corn based biofuel use (10/28/08).

Source: http://www.kansasbioauthority.org/projects_funded/. Accessed November 13, 2008.

There is no conflict where Biosciences and Bio-Energy overlap and this particular project is in line with the KBA's existing strategy, but the KBA needs to maintain its focus on the Biosciences, funding research, innovation and

⁵ Kansas Energy Council. 2008 Preliminary Policy Recommendations. Accessed from http://www.kec.kansas.gov/2008_prelim_policy_recommendations.htm on November 13, 2008.

commercialization. One \$300,000 project does not in itself indicate that the KBA has expanded its mission. If the KBA expands the mission into new sectors before the organization has a chance to mature, it will harm its long-term success. It has not expanded too far as yet, but the example above indicates the need for caution. In order for the KBA to resist the pressures to expand its mission, the KBA Board must build clear support for maintaining a focused strategy with key stakeholders, some of whom view the KBA as a bank rather than as a resource dedicated for a strategic purpose. The KBA was specifically established as a separate entity in order to insulate the funding from political pressures.



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