

Report
of
The Washington Advisory Group
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Taking the
Peter Kiewit Institute
to the Next Level of Accomplishment

Submitted to:

J.B. Milliken, President
The University of Nebraska

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EXECUTIVE SUMMARY

While we spoke with many different people, the conclusions and the recommendations made herein are solely those of the study team.

Our brief study focused on the Peter Kiewit Institute (PKI) and its chartered role to “provide an administrative structure that allows creation of synergy among these two Colleges [UNO/IS&T, UNL/Engineering] in order to expand educational opportunities in information science and engineering.” To answer the primary question posed to us “*What is needed to help bring the PKI to the next level of accomplishment?*” we also looked closely at the Colleges, other academic units in the Nebraska system, and the Omaha business and technology setting.

PKI has made substantial progress in the past ten years in fulfilling its stated mission, enabling the strong growth of the academic units it supports, producing an increasingly talented stream of graduates, and establishing relationships with a wide variety of companies and governmental organizations. Building on this success and using the experience of the past ten years, there are policy changes, administrative adjustments, and programmatic actions that will help carry PKI and its associated academic units into a successful future.

We found that:

- PKI is highly regarded in Omaha, but is largely unknown outside Nebraska; is well-regarded by UNO faculty and administrators; is understood differently by academics than by the broader business community; and is experiencing a suboptimal environment for its success as a result of the historical competition between Omaha and Lincoln, specifically by not utilizing some of the resources in the Computer Science & Engineering (CSE) Department at UNL.
- Graduates of the PKI programs, especially from IS&T do not meet the demand of local industry in quantity, but are credited with significant hands-on experience provided by access to many laboratories and internships that are available to students who are part of PKI.
- Most of the interactions with industry do not involve significant basic research, either with faculty or students; some companies have provided valuable resources including state-of-the-art laboratories, as well as student and faculty project opportunities.
- Research activity in the academic units at PKI is respectable, but the relatively low level of federal research support suggests that PKI has not yet reached a sufficient critical mass to be competitive nationally as a unit even though some individual faculty are.
- There are multiple opportunities for future growth in research and educational activities that could serve Nebraska well in the future.

- Utilization of PKI funds and connections with local industry has served the growth objectives well to date, but needs expansion and focusing going forward.
- The two primary academic units (IS&T and Engineering) have yet to exploit fully the potential for collaboration within and between academic departments, but there is clearly good potential.
- There is a clear need to engage in the development of a strategy and implementation plan aimed at identifying a few overarching directions for guiding PKI over the next five to ten years.

We were impressed with several things about Omaha, including: its capacity for sustaining a stable, employable population when other nearby regions are losing population; the presence of a number of major industry and governmental headquarters; and its civic-minded, strategically focused, and generous leadership cohort.

Of the two types of synergy anticipated when PKI was launched, one seems to be working nicely, namely the connection that each college has independently developed in support of the mission of PKI. The desired collaboration between the colleges of Engineering and IS&T has not fully developed as of this time. Although our recommendations are focused on PKI, not the academic units, there are obvious and important impacts on the units and the University.

Thus, we recommend that PKI:

- Bring greater strength and clarity to a small number of focus areas of relevant expertise;
- Develop better synergy between the component units of PKI;
- Expand resources and programmatic activities significantly, including the recruitment of star quality faculty who can make dramatic enhancement in the research competitiveness and academic quality of the PKI component units;
- Expand the number of PKI graduates in the information and computer science-related disciplines and study if more construction engineering graduates are needed;
- Consider the potential for building two separate but interrelated clusters of strength and innovation located on the UNO South Campus, one in information technology and one in construction to serve both the traditional construction/design/systems integration companies located in greater Omaha and the newer emerging needs for advanced applications of information technology;
- Consider developing stronger linkages between PKI and both the University's Medical Center and the UNL College of Agriculture to create a strong cluster in bio-informatics and medical informatics;
- Work to develop even stronger and deeper ties to organizations that are important economic drivers to the region, including STRATCOM, related defense contractors, Union Pacific, Peter Kiewit Construction, and HDR.

To achieve this, we recommend that the University of Nebraska:

- Take positive steps to help all campuses understand that cooperation via PKI can be a win-win-win situation and develop organizational and policy structures that facilitate and reward collaboration;
- Augment the PKI organizational structure with the appointment of an Executive Director who would be a strong, scientific and technology leader, with superb research credentials and an impressive track record. This position would supplement the already strong leadership in operations, student support, advocacy, and industry recruitment.
- Expand the Board of Policy Advisors to include individuals with national and global perspectives;
- Reform the functioning of the Coordinating Council by providing permanent leadership and by clarifying the scope of their responsibilities;
- Secure additional resources from both the State and the private sector to implement and empower the strategies to bring PKI to the next level of success.

In the body of this report we will explain, expand, and detail these observations and recommendations. Appendix 1 offers some additional observations and suggestions.

INTRODUCTION

The Peter Kiewit Institute (PKI) is an ambitious initiative to bring together business, university research, scientific and technical education programs and technological development. The original charter for PKI was developed in 1995 in response to concerns about the future economic vitality of Nebraska expressed by the Omaha business community. The multi-function, multi-faculty, multi-disciplinary and multi-campus character of PKI, inevitably, has produced both complexity and ambiguity in roles, organizational arrangements and authority in guiding the operation of PKI, leaving the management of these issues to the good will and good sense of those occupying the leadership positions at PKI.

PKI is *not* an academic center of the University of Nebraska (i.e. it does not have formal academic standing). It is a facility owned by the University of Nebraska which houses the following units:

- All faculty in the College of Information Science and Technology (IS&T) at UNO. Their courses are taught at the PKI facility.
- Faculty in Computer Engineering, Construction Management, Civil Engineering and Architectural Engineering from UNL. Approximately one third of the students in engineering programs at UNL are undertaking their degree programs in the PKI facility and at other facilities in the adjacent area.
- The administrative structure of PKI is served by a talented and energetic director whose duties and responsibilities include: student support (internships, career advising, placement), industry relations and support, media relations and advocacy, facility operations, and the allocation of small grants.

The governance framework of PKI includes:

- University governance by the Board of Regents and the President of the University and through the President, delegated to the respective Chancellors;
- Board of Policy Advisors (BOPA) comprised of 11 business leaders. Its chair is Walter Scott. The BOPA has fiscal authority over an endowment created for the support of PKI and held in a University Foundation account.
- A Coordinating Council comprised of senior academic officers and deans from UNO and UNL.

We assume that this history and the various organizational arrangements are well-known to the readers of this report and are recounted here only for clarity. The *PKI Self-Study, March 2007*, provides a ready source of more detail.

President Milliken, in cooperation with the Board of Policy Advisors, asked The Washington Advisory Group, an LECG Company to perform a short study to answer the question:

What is needed to help bring the PKI to the next level of accomplishment, as measured by contribution to Omaha and Nebraska and enhancement of the overall quality and reputation of the University?

A team of four senior professionals, all with mixed academic and industry/government experience have carried out the study with a mixture of in-person interviews, telephone interviews, and analysis of a large amount of printed and Web-based material provided by the University and some of the interviewees. A description of The Washington Advisory Group, the study approach, and the backgrounds of the team members can be found in Appendix 2. A list of the interviews and the major documents studied can be found in Appendix 3.

We focused on PKI. It was not within the scope or the resources of our study to analyze deeply or make detailed recommendations about the academic units, construction-related programs, technology incubator, housing, connections to the University Medical Center, Agriculture, and other University programs, or other organizations. At the same time, because of the fundamental purpose of PKI, the planned, synergistic relationship between PKI and the academic units, and the overlapping spheres of responsibility/authority, we had to develop some understanding of the full environment in which PKI exists. Similarly, recommendations addressed to PKI in the first instance will, per force, have impact on one or more of the related organizations.

The Executive Summary above is intended to be an abstraction of our most important findings and recommendations, but it does not contain everything. The remainder of the Report proceeds from our observations on the current status of PKI to actions we recommend PKI take, actions that the University of Nebraska will need to take, to some concluding remarks about the importance of the PKI mission and its centrality to the University and the future economic vitality of Nebraska. As noted above, the Report is written assuming the reader has substantial personal knowledge of PKI and its setting.

GENERAL OBSERVATIONS

Nebraska and Omaha: Nebraska is one of those states, in contrast to some in the U.S., whose population is essentially static or declining and which is not subject to the same pressures of rapid growth, or neither decaying nor exploding industries, and other socio-economic issues faced by many. Thus, the state has both strengths and weaknesses, and our impression is that the leaders we encountered have a clear understanding of the strategic circumstance and of the point of inflection they now face. .

In a state in which agriculture accounts for about one-third of the employment and economic activity, Omaha is almost an anomaly. It is the home to five Fortune 500 corporations, some of which have international operations, a major, strategic facility of the military, and a nascent high-tech activity. Because of unique local conditions Omaha has an unparalleled base of personal financial wealth. Continuing the solid, civic-minded tradition of this part of America, much of that wealth has been or is expected to be devoted to activities that will materially benefit the city and the state. This is a truly important and unique advantage that can be used to prepare seriously for the economic well-being of future generations of Nebraskans. The example of Norway's use of substantial oil revenues to secure the future comes to mind.

UNO: The University of Nebraska, Omaha has a long history as a municipal university, serving the local community with basic higher education, falling onto hard times financially and affiliating with a larger state-wide university or system, now trying to keep up with the rapidly changing workforce, demographic, and economic conditions of the late 20th/early 21st century period.

The UNO leaders that we spoke with uniformly believe that the development of PKI has helped to build their reputation, enabling them to recruit more and better students and faculty, not just in IS&T, but across the campus. As one faculty member put it, PKI has "sharpened the focus on metro engagement and raised the bar for the whole campus." "The MOUs with private industry, the expansion of collaboration with other departments and the quality of incoming students have enriched the campus." "We now have more math and philosophy majors, in part because they are enrolled at PKI." They are proud of PKI and fully support its efforts.

The emergence of PKI has provided new opportunities for UNO to grow and to develop its metropolitan mission. Campus leaders view the launching of PKI and related activities at Ak-Sar-Ben as a watershed event in the life of the campus. The initial anxieties about UNL "moving onto UNO's turf" have been overcome by the belief that "Omaha is where the action is" and PKI is the vehicle securing new opportunities and increased funding to expand their campus' mission.

UNL: The College of Engineering at UNL is on a positive trajectory, having moved in recent years from a rank order position of 116th among engineering programs nationwide to a rank order position of 86th. The volume of extramurally funded research stands

today at \$25M/year with \$3M of that in Omaha. The Computer Engineering program in Omaha is undergoing what the Dean describes as a long-term process of rejuvenation.

A major initiative to improve the research capacity of UNL is under way with emphasis shifting from single Principle Investigator grants to multi-disciplinary initiatives. Recent efforts to incentivize faculty with seed grants and with proposal writing assistance have proven very successful. The volume of sponsored research at UNL has doubled in the past 6 years and has grown to three times its level of 10 years ago.

The view of UNO that we encountered at UNL reflected an underlying concern that in a climate of scarce resources, any attempt to strengthen UNO would take away resources needed by UNL. In other words, funding for higher education in Nebraska could be perceived as a zero-sum game.

The view of PKI that we encountered at UNL reflected some puzzlement about why PKI does not do more to encourage collaboration with UNL faculty in relevant areas. It is also clear that UNL is proud of its own fairly extensive and successful interactions with industry, with other major research universities, and with the great success of the J.D. Edwards program, including its Presidential Honors College and its Scholarships.

Peter Kiewit Institute: PKI stands today as the poster child for the commitment of the local business community and the University of Nebraska to partner in providing leadership in sustaining the economic vitality of Nebraska. The creation of a progressive new College of IS&T, the construction and creation of a state-of-the-art building, creation of the related facilities and programs (Scott technology center, Scott village, Scott Scholars), the building of initial programs and relationships, and the recruitment of outstanding students (many of whom were formerly lost to Nebraska) are impressive accomplishments for ten years of which all should be proud. The emergence of the Durham School of Architectural Engineering holds even greater potential for catalyzing the University with important industrial sectors in Omaha and the state.

Not surprisingly, PKI has grown and evolved in ways that are more organic and opportunistic than as a result of a carefully developed strategic plan. Given the differences in character between industry and academe, initiatives like PKI that have attempted to meld the intellectual fire power of universities with the bottom-line focus of business have encountered the inevitable clash of cultures. The Omaha business community feels great passion about the importance of PKI to the future of Omaha and the region. Yet, on a national scale, PKI must take major steps to earn credibility and recognition in the university research and technology transfer communities. Thus, the agenda to meet fully the vision of the founders is both ambitious and challenging. This Report focuses on that agenda specifically.

STRATEGIC RECOMMENDATIONS FOR PKI ACTION

We recommend five major strategic actions to help take the Peter Kiewit Institute to the next level of accomplishment. The consulting team believes that it is both worthy and achievable to grow and strengthen PKI. Our conviction that this objective can be accomplished is based upon the demand for talent in these key fields, the opportunities to expand the economic base in greater Omaha and beyond, as well as the potential financial resources available to tackle this challenge.

These recommendations are made in terms of “PKI” but clearly they cannot be accomplished without the academic units that comprise PKI. For each recommendation we will provide a brief rationale and discussion of considerations that should effect their implementation.

Strategic Recommendation 1: *Significantly strengthen and focus the technical and educational activities of PKI on no more than three areas initially, growing to perhaps five.*

Rationale: When considering a research and educational organization in the fields represented at PKI – whether that consideration is by entering freshmen, government funding managers, or a company wishing to hire graduates or establish collaborative research activities – the quality of the people in the organization and of their work is paramount. Focus is the primary strategy for gaining the initial resources and for creating a synergistic environment that will attract more resources and people.

Considerations: There are many and we simply list them here with little or no explanation:

- The areas chosen must have relevance to Omaha and to Nebraska.
- There is near-term and long-term relevance, and a balance must be maintained.
- Areas must change over time in response to changing technology and changing local needs.
- The people involved must be of the highest obtainable quality and must include leaders.
- The choice of programs and activities on which to focus must be academically acceptable and earn respect in that domain while at the same time being strongly relevant to local industry.
- Strong general education (developing critical thinking skills, the ability to communicate in writing and orally, problem solving skills, etc.) and respectable research activities must be maintained in all relevant areas while special attention is paid to the focus areas.

- PKI encompasses both IT and non-IT disciplines, which immediately creates a certain loss of focus at the highest level, but this can be turned into an advantage (a sub-strategy) by helping the non-IT disciplines to better utilize IT.
- Choice of focus areas depends on a number of factors which our study did not have time to consider in depth, but based on what we know at this stage, we recommend that at least the following areas be further evaluated for potential focus:
 - Security and information assurance
 - Datamining, handling of large data sets
 - Medical informatics¹
 - Bio informatics
 - Construction informatics
 - Agricultural informatics
- Implementation of these focus areas will require many subsidiary actions, all of which will require careful and strategic action (e.g., faculty hiring) including downplaying some areas and/or forgoing some potential opportunities (e.g., accepting an industry contract that is focused purely on short-term work).

Even the strongest universities are not equally good at everything, and they don't try to be.

Strategic Recommendation 2: *Increase the number of graduates from PKI-based programs in IT and, if justified, in construction disciplines.*

Rationale: It appears that the demand for PKI graduates routinely exceeds the supply. Given the general growth in the use of IT in all areas of the economy, we believe that all of the projections of continued need for IT graduates nationally will certainly apply to Nebraska. Having a steady and well-trained supply of IT people is increasingly essential for any business activity, regardless of any special considerations such as may be created by the focusing recommended above. The case for construction-related graduates is unknown to us, but given the prominence of Omaha-based companies in the construction-

¹ "Informatics" is used here to indicate research and educational activities that combine solid work in both computer science-related disciplines and another area such as medicine, construction, or agriculture (sometimes called "CS+X"). It is generally understood that informatics is more than just "application" of information technology and in the most advanced situations will involve the most sophisticated thinking in each field and result in advances in each of the component disciplines. For example, bio informatics generally refers to analysis of genomes and proteomes, whereas medical informatics refers to hospitals and lab systems. It is also the case, however, that each field named above is very broad so that a specific focus must be chosen.

related industries and the ever-broadening scope of companies like Union Pacific, we certainly see a potential business opportunity.

Considerations: There are several:

- The largest numbers needed will always be at the Bachelor's level, but appropriate attention should be paid to graduate levels also.
- Master's degrees in IT-related subjects are often the desired route in producing informatics graduates.
- Doctoral degrees are essential in most disciplines to support the research agendas of the faculty, to help establish a national presence, to insure that the educational programs are as advanced as possible, and potentially to produce startups.
- Demand in IT-related disciplines is cyclical, but consistently trending upwards, so planning and a mid- to long-range perspective are essential.

To a certain extent, a steady supply of graduates that is not too far separated from current demand can create their own demand.

Strategic Recommendation 3: Significantly broaden and increase the financial base of PKI.

Rationale: The financial support of PKI by the business community and the University (and State) so far has been truly phenomenal and has provided PKI a clear advantage. Moving forward, however, support must be diversified and strengthened in order to accomplish the other strategic objectives.

Considerations: This is not simply a recommendation for more money, especially from those that have already given so generously:

- Competitively awarded research funding is essential for faculty, most especially in the focus areas, since it exposes their work broadly, helps guide them to cutting edge topics, and validates the quality of their work (in computer science, \$200-\$300,000/year/faculty of competitively awarded funding is not uncommon nationally).
- Seed funding for research and assistance with the development of proposals for federal funding opportunities are essential to any aspiration to ramp up competitive awards.
- The amount of funds available annually from PKI for discretionary investments in the academic units is fairly modest by national standards (a single new faculty startup package can run several hundred thousand dollars).
- PKI should seek to recruit established or superstar junior and senior professors by offering generous startup packages allowing for relocation and lab build out as well as provision for post-doctoral scholars, and staff. If a group or center can be

recruited “en masse” through the importation of an entire research group, this can greatly accelerate the establishment of a world-class center of excellence. Attracting major senior leaders can run \$1 million or more each, and ideally several will be needed to implement the strategy of focusing.

- Expansion of student production will require more faculty and more space as well as more financial aid to recruit students from Nebraska and beyond.
- Graduate fellowships are needed to enable quality work at advanced levels.
- Locally-based companies need to invest in PKI just as they invest in physical resources to insure the workforce they need.
- Expansion of the number of sources of funding for PKI and its constituent units will help provide long-term stability as funding from any single source expands or contracts.
- PKI funds should be allocated in a transparent manner that is consistent with the stated objectives of PKI and in the best interests of faculty and PKI.

Money is always necessary, but as in most endeavors it is not sufficient to guarantee success.

Strategic Recommendation 4: Develop deeper, strategic, and lasting partnerships with several local organizations.

Rationale: Education and research are long-term activities; the University and PKI will still be in operation many years from now. To be effective partners of outside organizations while at the same time meeting the objectives of the University and faculty, the best relationships are those that are the most substantive and advance both organizations.

Considerations: Some of the more important characteristics include:

- A few very solid relationships can be more effective in the long run than a number of short-term, shallow, and non-strategic relationships.
- Research relationships should advance the research agenda of the faculty involved while at the same time fulfilling a need of the outside organization.
- Pure development or routine (strictly applied) research relationships should be avoided unless they provide needed opportunities for practical student involvement.
- Relationships should be enabled by the PKI administration, but driven by the faculty involved.

- Care must be taken to insure that outside relationships, no matter how interesting they appear to be, do not unduly distract faculty and students from their primary responsibilities.
- The nature of most industry relationships will necessarily be fairly short (a few years at best) in most cases, but two possible strategic partnerships seem very important to us – namely with UNMC and with STRATCOM; to deepen those partnerships will require access to star faculty and scientific support personnel.

Relationships are rarely easy to develop and maintain, and the value of skilled relationship builders should not be underestimated.

Strategic Recommendation 5: *Develop strong and truly synergistic interactions within PKI and between the academic units in PKI and other NU academic units in Omaha and Lincoln*

Rationale: The PKI charter clearly envisions the strength that can emanate from good interactions. That was true in 1995 and even more so today. PKI must re-double the efforts to build a culture of collaboration and interaction. This is arguably the best, if not the only way, PKI can develop a strong and distinctive reputation

Considerations: Among the more important are:

- Most of the possible focus areas suggested above demand interactions among IS&T faculty and others.
- If interactions between significant numbers of residents of the PKI building are not possible for whatever reason, then the non-interacting people or units should be moved elsewhere to make room for others that do want to interact.
- Quality in one area will rub off on others if they are exposed to it on a daily basis.
- Interactions, whether external or internal, require leadership.
- Everything noted about interactions between different units (e.g., IS&T and Architectural Engineering) applies to interactions within units.
- Cross disciplinary collaboration cannot be forced from the top down. It must develop from the natural curiosity of university faculty. The presence of energetic world class faculty will be a magnet that draws others to them. Synergism among different disciplines is hard to achieve and not needed in all cases, but it is clearly needed to tackle many of today's technical, business, and societal problems. PKI was founded on the principle of doing this and it is needed now more than ever.

RECOMMENDED ENABLING ACTIONS AT THE UNIVERSITY LEVEL

The strategic actions recommended above are things that PKI as an organization should do/lead/enable to move to the next level of accomplishment. There are several actions that need to be taken at the level of University administration which is ultimately responsible for the success of PKI.

Recommended Action 1: *Take positive steps to change attitudes on both campuses and within PKI. Rewards and incentives can be effectively used to improve the culture and to create new opportunities for cooperation.* We observed the deleterious effect of the current stove piping and lack of cooperation in almost every interaction we had.

Rationale: At the end of the day, it is in everyone's interest to make PKI a true success academically and in the eyes of outside organizations. Because cooperation can expand opportunities and available resources in most instances, it is usually outdated and non-strategic attitudes and lack of leadership that prevent cooperation.

Considerations: This sounds like a simple task, but change is hard:

- A range of leaders must be involved starting with the President and Regents and involving deans, department chairs, and faculty leaders.
- It will take time and will not be 100% successful.
- There will always be – and should be – a tension between the demands for cooperation with others and the imperative of individual agendas and achievement; that is the curse and the promise of university leadership.
- To create a truly win-win environment for both campuses and for the region that encompasses both Omaha and Lincoln, it might be highly desirable to plan for the development of a branch of PKI in Lincoln that would not duplicate the main location in Omaha but would be complementary (a not-uncommon situation with institutes in a multi-campus system). One could imagine that these two cities and these campuses (including UNMC as well as UNL and UNO) might form a “bar bell” with an easily traversed connector.

Recommended Action 2: *Bring the actual mission and operation of PKI into better alignment with the visionary mission stated in the Charter and update the Charter to recognize the realities of 2007.*

Rationale: The charter developed in 1995 envisioned that PKI would be run by academics (the two deans) with appropriate oversight by senior campus and university executives (the Coordinating Council); that if needed, the deans would hire a non-faculty

Administrator; and that external advice on plans and operations would be provided by a mandated, external group (the Board of Policy Advisors). Every successful university operation of which we are aware, including many with significant external inputs, operates with a structure such as this. We repeatedly were told that the actual operation and mission are to some extent at variance with these principles, and we believe that this is holding PKI back from moving forward.

Considerations: In the following, we are referring to PKI as an organizational entity, *not* including the academic units that are a part of PKI since their activities and authority are governed by University and campus structures. We recommend specifically modifications of the Charter to effect this appropriate alignment:

- A new position, not envisioned in the original Charter, of Executive Director of the Institute who would bring impeccable academic credentials in science and technology should be created as a complement to the current Director of Operations. The Executive Director and chief science and technology officer should report to the Executive Vice President and Provost of NU and be responsible for the overall academic policies, programs, and operation of PKI. He or she should work closely with the Coordinating Council. The position should be held by someone with senior faculty rank in one or more fields relevant to PKI who has demonstrated leadership qualities relevant to carrying out the strategies discussed in this Report and who has a record of building collaborative enterprises. The incumbent in the position should have at his or her disposal sufficient resources, primarily financial and space, to insure seed grants for faculty development of research proposals, support for administering a competitive grant program, stipends, remitted tuition and related financial aid for graduate students as well as other related conditions for achieving the mission of PKI.
- The Coordinating Council should be comprised as stated in the Charter, with the replacement of the “Assistant Vice Chancellor for Education and Information Services at UNO” with the Associate Vice Chancellor for Research and Graduate Dean at UNO. The Executive Vice President and Provost of the University should serve as the permanent chair of the Council.
- The Board of Policy Advisors should remain as chartered, but the membership should be brought into line as quickly as possible with the original vision of “eleven leaders of business, government agencies, and industry from Omaha, Nebraska, and the nation.”
- Any other necessary wording changes to the Charter should be effected to make it consistent with these changes.

An organization based on the activities of faculty can only be truly successful when led by someone with faculty credentials. The structure recommended above is consistent with almost all university-based centers or institutes. The nature of PKI and the desire for strong interaction with outside organizations argues for an empowered leader who is sensitive to the needs and protocols of both faculty and business organizations and who is

able to work closely with both cultures and bring them together for mutual benefit. The multi-campus, multi-faculty nature of PKI argues for someone that is organizationally independent of either campus. By reporting to the Office of the President, the importance of PKI to the entire university is emphasized and enabled. The mandated interaction between the Institute Director and the three entities most intimately involved (the academic units and BOPA) insures that the synergistic nature of the operation is emphasized.

CONCLUSION

PKI is an outstanding expression of generous, cohesive, civic purpose focused on the economic health and future of Omaha and Nebraska. It is clearly very important as an economic driver for the future and as a primary vehicle by which the University of Nebraska can fundamentally contribute to a secure future. PKI has achieved a lot in the first phase of its existence. Of critical importance for the future is the need to determine the small number of academic areas of focus in which to make investments that will leverage current expertise, build niches that can gain a national reputation, and capitalize on growth markets where PKI can be competitive. While the necessary growth and strengthening required for the future will not be easy, the economic resources of Omaha coupled with its strong tradition of effective civic leadership clearly open the path to continued success.