Towards a shared vision and strategic plan for CBE Research

Draft note on our work in progress

This note is a progress report on the strategic planning activities conducted in 2017-2018 by the CBE Research Community to establish a shared vision for CBE as a successful research unit and to create an effective research infrastructure to enable faculty and students achieve their goals. We hope it will provide an important background for the upcoming discussions and dialogue for planning for the future of the College.

Marina and Rachel   (January 7, 2019)

Content

1. The Scope

We envisioned a Research Strategic Plan process to establish a shared vision and action plan for the UW College of Built Environments to emerge as a successful research unit and to create an effective research infrastructure to enable faculty and students achieve their research goals. As an initial step towards these objectives, we held a strategic planning workshop in Spring 2018 to address two questions:

1. How do we define success for CBE as a research unit that has high impact in society? What are some concrete examples that we can envision that will describe that success?

2. How do we get there? What governance structure, infrastructure, facilities, resources, support we need to create in order to create success?

2. The Workshop

The strategic planning workshop held on May 16, 2018 in Gould Hall, University of Washington, is the first of a multi-phased strategic planning effort organized by CBE Research and led by the CBE Research Team.

Through two brainstorming sessions and facilitated conversations over three hours, 40 CBE faculty representing the five CBE Departments and CBE staff discussed what success would look like for CBE Research in 2030 and how this can be achieved.

Betsy Daniels of Triangle Associates led a consensus building activity in which participants responded and discussed the guiding workshop questions individually, in small groups, and in plenary discussion using index cards. Structuring the activity in such a way allows people of all communication styles to have the opportunity to share their ideas. Through the group's discussions, participants were able to see commonalities, shared themes, and breadth of ideas in their responses. Please see Tables 1 and 2 for the specific outcomes of each of the two questions.

Round 1: How do we define success for CBE as a research unit that has high impact in society? What are some concrete examples?

We asked to define success by providing concrete examples (i.e. being recognized as a model for BE colleges nationally and globally, being regarded by the industry and public sector as a source of innovation, being actively engaged with the community). By having participants define success independently, as a table, and as an entire group, participants developed shared definitions of success for CBE as a research unit. Because the question specifically asks what success looks like for CBE as a research unit with a high *impact in society,* most responses involved external recognition and collaboration such as: "international interest as a place and focus for collaboration."

Responses involved internal resources and collaboration such as "multi cross-disciplinary work within and between CBE and other UW units such as public policy, public health, engineering, etc." Responses were also not specific to individual departments, exemplifying that definitions of success for CBE are generally universal, regardless of the diversity of research within the college. Some examples[1] of the universality of responses include:
- "being students' first choice [college],"
- "industry sees CBE as a source of innovation,"
- "knowledge we created seen in major textbooks in our disciplines"
- "CBE welcomes diverse perspectives and engages a broad range of knowledges; "ways of knowing"
- "measurable impact on society on key issues"
- "people know CBE and its intention."

Common themes of definitions of success included Cutting Edge Research, Dissemination [of knowledge], Model for Built Environment Schools, Impact [on society], Money, Innovation, and Community Engagement.

Round 2: How do we get there? What governance structure, infrastructure, facilities, resources, support, etc. do we need to create in order to create success?

This question allowed participants to make the connection between today's reality and the future's success, while leaving room for imaginative responses. However, the two categories with the most common responses to what is needed to achieve success were ones grounded in reality: staff and a robust support structure. Upon reviewing the responses under the *Staff* and *Support* categories, these two categories are generally one

---

[1] The examples used in this summary are not intended to represent priority responses. Examples in this summary reflect complete ideas and encompassed other responses recorded. To see the full list of responses, please see the spreadsheet of responses.

and the same: faculty needs staff to provide a variety of administrative support to allow them to focus on their research. Similar to the first question, responses under these two categories were universal across departments.

- Faculty from across CBE noted that that having someone dedicated to supporting partnerships within and outside the university, managing grants, and disseminating research, would relieve them of responsibilities that overtake time dedicated to conducting research. Examples of responses that illustrate this include "support for dissemination of research results," "fundraising while promoting the CBE qualities and accomplishments," and "a 'connector' to community, UW, and other institutions."

- Many participants noted that providing faculty with additional support would do more than just help faculty do their job. It would support the larger goal of being a cohesive research unit by building CBE's capacity to support relationships and collaboration, as well as improve efficiency.
- It was noted that although money is a key resource to achieve many of CBE's goals, it is not the only solution to achieving all of the elements of CBE's success. It is CBE's internal structure and impact on society that drive the inflow of money and it is the decisions made about how money will be used and how that money will be obtained that will facilitate CBE' success. Money is simply an indicator of success.
- While responses to how success for CBE is defined involved external relationships, responses to how CBE should achieve that success involved internal structure, culture and support, indicating that for CBE to be successful in the larger society, CBE must focus on improvements within the college.

We concluded the workshop by envisioning a shared governing structure to lead the implementation of the strategic plan. This will entail the creation of a research advisory committee representing six main agents including: the departments, the centers and labs, the CBE infrastructure, the students, the Institute for BE Innovation, and the central administration. Faculty indicated "what role they could play" and volunteered to participate in a variety of capacities. The group acknowledged that they are good at generating ideas but less so in following through on those ideas. Therefore, closing the workshop with an activity for participants to identify what role they can play in implementing CBE's goals was a necessary way to ease participants into moving forward accountably.
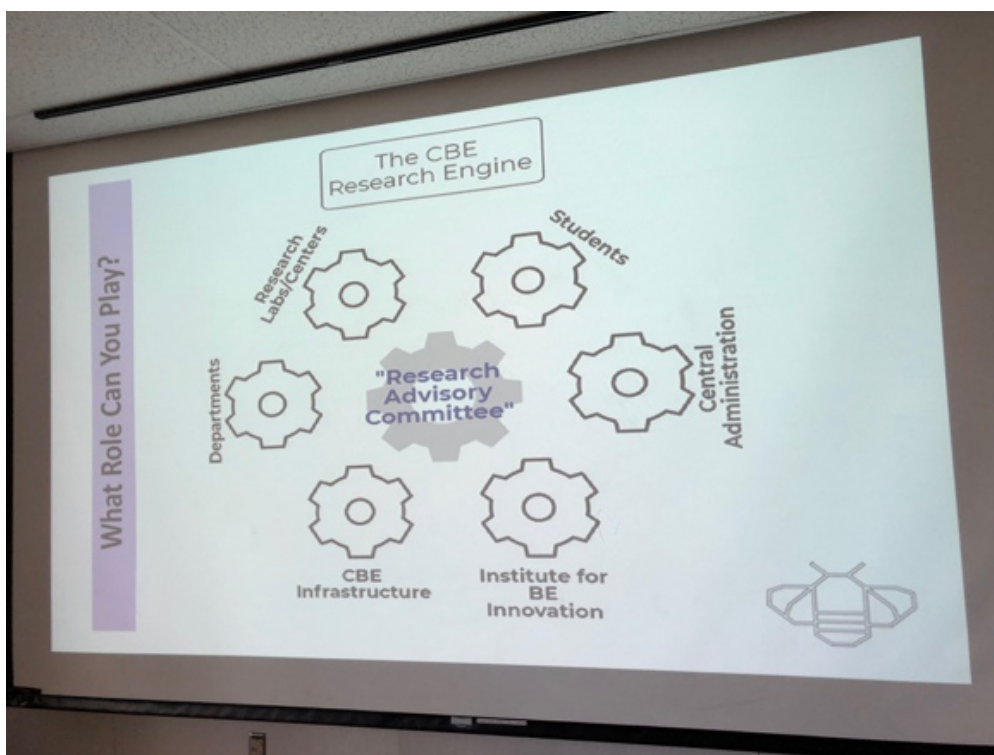
Some responses to the what role individual CBE faculty members can play in the "CBE Engine" include "facilitating connection to faculty," "collaborate with internal and external stakeholders," and "standardize processes." Immediate next steps include discussions amongst a smaller group of participants representing various CBE interests to act as research advisory work group to prioritize goals and approaches to pursue. This will be followed by a workshop in the Fall to finalize prioritizations and define a set of short-term and long-term strategies to achieve the set goals.

Next Steps

The workshop participants envisioned the steps to turn the ideas into a strategic implementation plan. The first step will require to set priorities and develop a road map with intermediate steps and benchmarks. Based on the workshop input, we developed a survey to identify priority actions for the short-terms (i.e., what we can do better with the existing resources) and long-term (i.e., actions that will require reorganization and new resources). A survey was conducted over the Summer of 2018 to prioritize both short term and long-term actions.

Formalizing the CBE "research engine" by establishing a research advisory committee will help turn the prioritization into an operational plan. Fifteen faculty and three staff members offered to serve on the advisory committee to prioritize the action items and explore options for implementation.

Participants reported that this was the first time a group of faculty of this size has convened in years. Several participants expressed optimism and described the workshop as an important step for CBE to be more intentional about its goals and processes to achieve those goals.

3. The Vision

A major accomplishment of the workshop was an emerging shared vision for CBE research. The vision is centered around key elements (Table 1):
- Cutting edge research
- Effective dissemination
- Model for Built Environment Schools
- Local and international recognition
- Research support
- Innovation
- Community engagement

A key highlight is the *diversity* of research conducted by CBE faculty and students. This constitutes our strength and great potential. It also poses challenges to design and implement a research support infrastructure that is *robust, inclusive, and efficient.*

To map all the CBE research types, modes, and needs, in Fall 2018 we conducted a survey among the CBE community to identify the diverse research support needs (See Survey 2).

Quality	Cutting Edge	Dissemination	Model for Built Environment Schools	Impact	Money	Innovation	Community Engagement
Research excellence	Everyone (at 4th year) knows expertise of everyone else	Knowledge we created seen in major textbooks in our disciplines	Other universities copy what CBE does	Funded research (independently and government funded); Publication (citation); number of PhD students	Lot of research money	Industry sees CBE as a source of innovation	Influence (local, national, international) on communities through sustained relationships (e.g. research chairs coordinate/lead)
Students first choice	We are the city and region's metro lab	Books and papers disseminated and used; Faculty time/supported collaboration	Robust college infrastructure for research/scholarship	International recognition for research innovation	Able to leverage and partner with other resource-scarce units	Increased college collaboration internal and external	Regional think tank convening space
Responsible research practices	More cross-disciplinary work within and between CBE and public policy, public health, engineering, etc.	Peer-reviewed Publications	National/international reputation	Major built projects in region are impacted by UW CBE knowledge/research/ collaboration; projects & policy	Research seen as central not as extra activity	Research culture in BE is better defined	Visible on Seattle metro area
Guided by open communication, collaboration, and respect for other points of view.	Seattle School of Built Environments	CBE publication portfolio	Seattle School of Built Environments	International interest as a place of collaboration		CBE welcomes diverse perspectives and engages a broad range of knowledges; and approaches to research	Measurable impact on society on key issues
	History-theory center of excellence	Multi-media & General public publications	Strong international reputation	Inter-university invited to table for research			Effective, valued public engagement to solve intractable challenges local and global
	Research and design (integrated into more coursework across disciplines		Recognized expertise resource by community	Climate action plan			
	Reputed material lab						

4. Priority Actions

A fundamental step of the strategic planning process consists of identifying a series of priority actions to realize our shared vision of CBE Research. Table 2 summarizes key priority actions identified at the strategic planning workshop. Through a follow-up survey conducted over the Summer (2018) follow-up survey, CBE faculty, students, and staff prioritized the actions in the short (Table 3) and long term (Table 4).

The CBE research community identified thirty priority actions under seven categories including:

- Research Collaboration
- Support Staff
- Infrastructure
- Resources
- Grant Funding
- Facilities
- Culture

Short-term priorities

Top priorities identified for the short-term include:
1) An effective communication network with external, internal, and peer institutions and creating a portal to share information and a collaboration platform.
2) A robust grant preparation and submission support team and a standardized process and time-line.
3) Opportunities for CBE internal communication through ongoing seminar services.
4) Exploring with new Dean new opportunities for expanding resources for research.

Other important priority actions for the short-term include:
5) An ongoing cross-disciplinary seminar to expand opportunities for research collaboration and data sharing.
6) Systematic communication between research staff and faculty both on grant submissions and grant management.
7) College-wide system and dedicated staff and resources for collecting/disseminating research activities, develops repository, document data.
8) Support for faculty (seed grants, teaching time release, and staff support).
9) Multiyear PhD funding packages.
10) New spaces for research collaboration.

<u>Long-term priorities</u>

The two priorities identified for the short-term that are ranked top also for the long-term success of the College include:
1) A robust grant preparation and submission support team and a standardized process and time-line.
2) A college-wide system and dedicated staff and resources for collecting/disseminating research activities, developing a repository, documenting data.

Among the top priorities are also:
3) More time for the faculty and staff to build internal communication, collaboration, and information sharing.
4) Seed funding and teaching time release for faculty research.

An important priority for the long-term is creating a culture of research through a series of actions by:
- Cultivating a culture for high research productivity (efficient use of faculty time).
- Appreciating the importance of "research"; reward structure.
- Establishing collaboration criteria: incentives, recognition and advancement.
- Recruiting the best students (because of reputation and funding).

5. CBE Research Diversity

The CBE Research Advisory Committee envisioned a further survey to refine the prioritization of action items and develop a plan that reflects the diversity of research needs emerged as a key strength of our College. The committee felt that *inclusiveness* should inform the prioritization of actions of the strategic plan for CBE to achieve its research potential. To help us map all the diverse types and modes of CBE research we developed a second survey focusing on CBE Research activities and needs. We asked the CBE faculty, PhD students, and Staff to identify the type of research they conduct, specify the activities involved, and indicate the primary needs. We also asked to indicate the primary audience and impact. A summary of the results is attached to this note.

The survey clearly shows that our research is highly diverse with an emphasis on applied research and significant components of historical, theoretical, exploratory, and experimental research (Figure 1). Among the highlights of the survey results are also the diversity of research activities (Figure 2). Yet the results show the convergence of research needs around four major elements including time (which ranked top among the needs), grant administration, and seed and travel money.

Research Collaboration	Support staff	Infrastructure	Resources	Grant funding	Facilities	Culture
A1. Ongoing cross-disciplinary seminar	B1. Systematic communications between research and infrastructure personnel	C1. College-wide system and dedicated staff for collecting/disseminating research activities, develops repository, document data	D1. New dean: explore opportunities for expanding resources	E1. Multiyear PhD funding packages	F1. New building/space for collaborative research	G1. Cultivating a culture for high research productivity (efficient use of faculty time)
A2. Formal cross-disciplinary mentoring	B2. Standardized processes - clarity in expectations	C2. Opportunities for internal communication (CBE Seminar Service)	D2. Endowed fellowships	E2. Grant writing support	F2. Graduate student office space for research activities	G2. Appreciate importance of "research"; reward structure
A3. More time for faculty and staff to build relationships internal and external	B3. Robust grant preparation/ submission support team	C3. Industry partners; opportunities for testing innovation	D3. Start up support to build research money capacity	E3. Support for faculty (seed grants, teaching time release, and staff support)	F3. Faculty lounge (or some such) --> informal exchange	G3. Culture of collaboration criteria: shared incentives, recognition and advancement
A4. Communication: external, internal, peer institutions portal, collaboration platform	B4. Intercollege project matchmaker/ connector to community, UW, other institutions	C4. Stronger connection to other units (UW); CBE as a gateway to university resources	D4. Resources for dissemination of research results	E.4 Training/ mentoring junior faculty (re: funding partnerships, research)		G4. Recruit best students (because of reputation and money)
A5. Facilitate research diversity and productivity	B5. Grant management support		D5. Change ABB (new funding/budgeting structures for innovation)			

Table 2. CBE Research Priority Actions

Research Collaboration	Support staff	Infrastructure	Resources	Grant funding	Facilities	Culture
A1. Ongoing cross-disciplinary seminar 🟡	B1. Systematic communications between research and infrastructure personnel ⚪	C1. College-wide system and dedicated staff for collecting/disseminating research activities, develops repository, document data 🟡	D1. New dean: explore opportunities for expanding resources 🔴	E1. Multiyear PhD funding packages 🟡	F1. New building/space for collaborative research ⚪	G1. Cultivating a culture for high research productivity (efficient use of faculty time)
A2. Formal cross-disciplinary mentoring	B2. Standardized processes - clarity in expectations 🟡	C2. Opportunities for internal communication (CBE Seminar Service) 🔴	D2. Endowed fellowships	E2. Grant writing support	F2. Graduate student office space for research activities	G2. Appreciate importance of "research"; reward structure
A3. More time for faculty and staff to build relationships internal and external	B3. Robust grant preparation/ submission support team 🔴	C3. Industry partners; opportunities for testing innovation	D3. Start up support to build research money capacity	E3. Support for faculty (seed grants, teaching time release, and staff support) 🟡	F3. Faculty lounge (or some such) --> informal exchange ⚪	G3. Culture of collaboration criteria: shared incentives, recognition and advancement
A4. Communication: external, internal, peer institutions portal, collaboration platform 🔴	B4. Intercollege project matchmaker/ connector to community, UW, other institutions	C4. Stronger connection to other units (UW); CBE as a gateway to university resources	D4. Resources for dissemination of research results ⚪	E.4 Training/ mentoring junior faculty (re: funding partnerships, research)		G4. Recruit best students (because of reputation and money)
A5. Facilitate research diversity and productivity	B5. Grant management support ⚪		D5. Change ABB (new funding/budgeting structures for innovation)			

🔴 Highest   🟡 Medium   ⚪ Lower

Table 3. CBE Research Priority Actions: Short Term (Survey 1)

Research Collaboration	Support staff	Infrastructure	Resources	Grant funding	Facilities	Culture
A1. Ongoing cross-disciplinary seminar 🔘(Lower)	B1. Systematic communications between research and infrastructure personnel 🔘(Lower)	C1. College-wide system and dedicated staff for collecting/disseminating research activities, develops repository, document data 🔴(Highest)	D1. New dean: explore opportunities for expanding resources 🔘(Lower)	E1. Multiyear PhD funding packages 🔘(Lower)	F1. New building/space for collaborative research 🟡(Medium)	G1. Cultivating a culture for high research productivity (efficient use of faculty time) 🟡(Medium)
A2. Formal cross-disciplinary mentoring	B2. Standardized processes - clarity in expectations	C2. Opportunities for internal communication (CBE Seminar Service)	D2. Endowed fellowships 🔘(Lower)	E2. Grant writing support	F2. Graduate student office space for research activities	G2. Appreciate importance of "research"; reward structure 🟡(Medium)
A3. More time for faculty and staff to build relationships internal and external 🔴(Highest)	B3. Robust grant preparation/ submission support team 🔴(Highest)	C3. Industry partners; opportunities for testing innovation	D3. Start up support to build research money capacity	E3. Support for faculty (seed grants, teaching time release, and staff support) 🔴(Highest)	F3. Faculty lounge (or some such) --> informal exchange	G3. Culture of collaboration criteria: shared incentives, recognition and advancement 🟡(Medium)
A4. Communication: external, internal, peer institutions portal, collaboration platform	B4. Intercollege project matchmaker/ connector to community, UW, other institutions 🟡(Medium)	C4. Stronger connection to other units (UW); CBE as a gateway to university resources 🟡(Medium)	D4. Resources for dissemination of research results 🔘(Lower)	E.4 Training/ mentoring junior faculty (re: funding partnerships, research) 🔘(Lower)		G4. Recruit best students (because of reputation and money) 🟡(Medium)
A5. Facilitate research diversity and productivity	B5. Grant management support 🔘(Lower)		D5. Change ABB (new funding/budgeting structures for innovation)			

🔴 Highest 🟡 Medium 🔘 Lower

Table 4. CBE Research Priority Actions: Long Term (Survey 1)
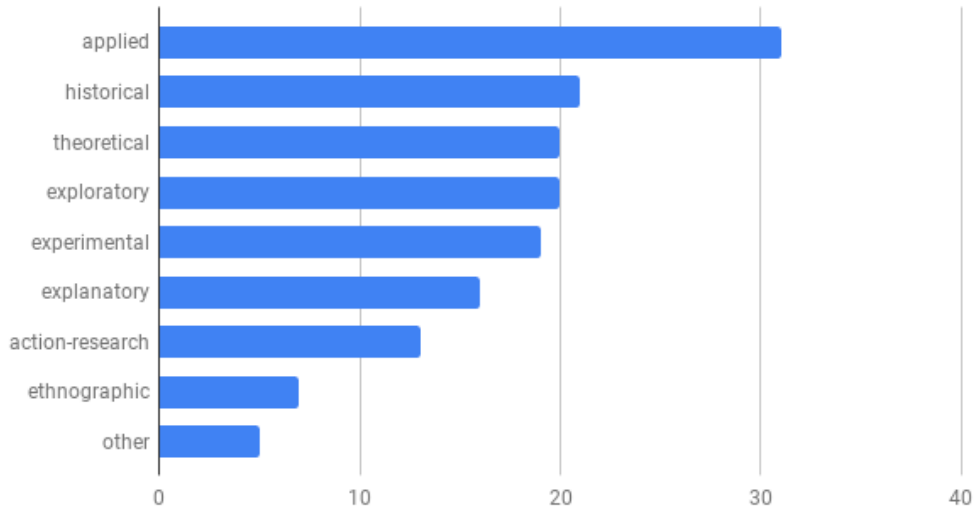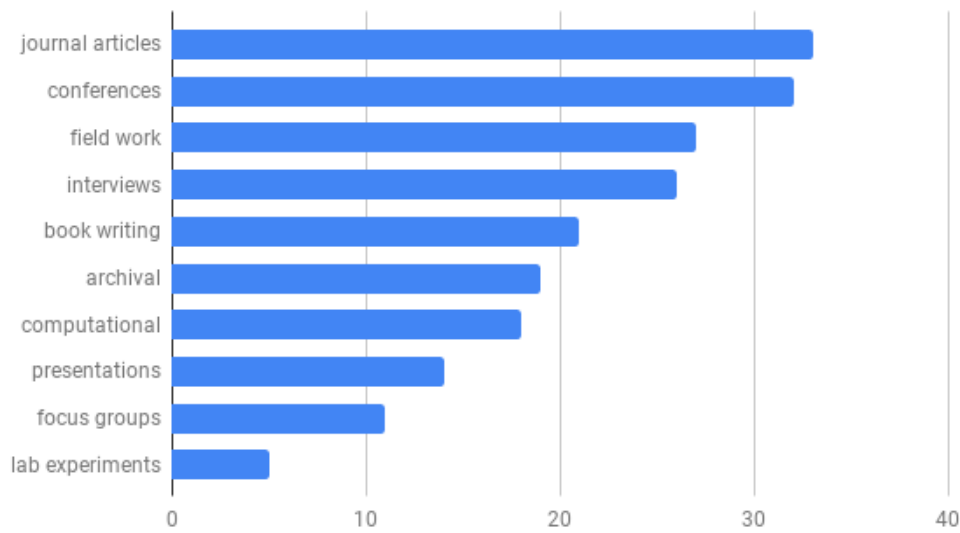
Figure 1 CBE Research types

Figure 2 Primary research activities

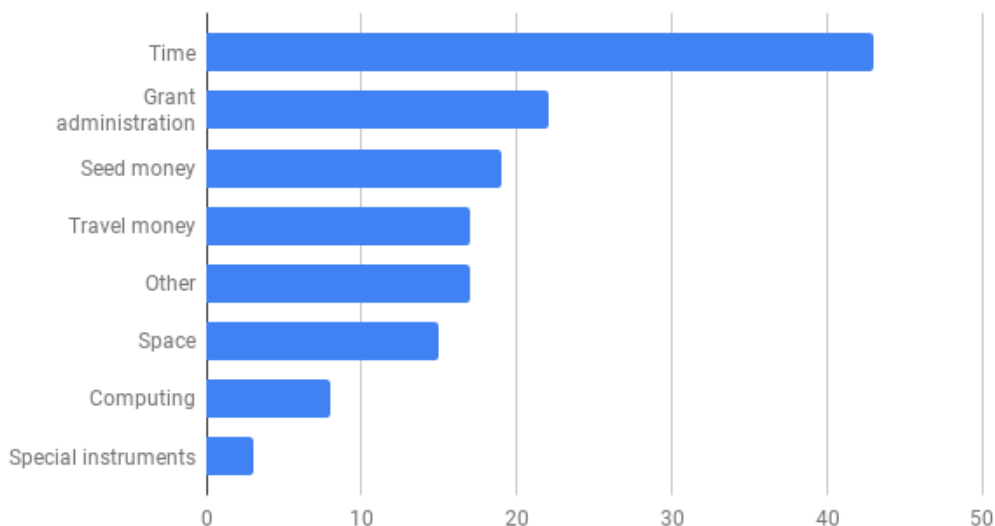## What are your primary needs for research support?

Figure 3 CBE Research needs

6. CBE Research Next Steps

We envisioned two important next steps to operationalize the priority action items identified at the strategic planning workshop and through the surveys:

1) Develop specific options and operational plan that clearly identify *who* is responsible for implementation, the sources of *resources*, and *time-line*.

2) Identify a set of *indicators* and *benchmarks* for monitoring and evaluating progress towards our objectives.

An initial exploration of specific options to address the identified needs has begun at our last meeting in December and will continue through the academic year. Our hope is that what we have learned through this process will provide our new Dean with important information for leading our College towards the success of CBE Research.