DRAFT

CREATION OF A STRATEGIC PROJECTS TEAM AT THE UNIVERSITY OF SASKATCHEWAN

Office of the Vice-President Research 3 March 2008

Introduction

The University of Saskatchewan (U of S) strives to achieve excellence in the scholarly activities of engagement, teaching, discovery, criticism, innovation, preservation, and application of knowledge (*Renewing the Dream: University of Saskatchewan Strategic Directions (2002)* and *Office of the Vice-President Research Integrated Plan and Multi-year Budget 2004-2007 (March 2004)*). The identification, promotion, development, and delivery of strategic research initiatives through collegial and administrative processes that are the collective and shared responsibility of University Council, the Board of Governors, and the President's Executive Committee, is designed to enable the University to achieve its goals of increasing research intensiveness, enriching the learning environment, and contributing to the economic and societal prosperity of the Province. Substantial academic, administrative, and other resources are assembled to support key initiatives; however, these initiatives may benefit and proceed to implementation more quickly if a dedicated team of professionals and academics could be deployed to help further the institution's broad objectives in key areas that have been identified as strategic priorities for the U of S.

The Office of the Vice-President Research (OVPR), through creation and implementation of a *Strategic Projects Team* (SPT), will assist the University in the achievement of these goals. Other universities within Canada and internationally have recognized the significant importance of providing high-level, intensive support to strategic projects as a means to increase the likelihood of successful implementation. A recent Globe and Mail (refer to Appendix 1) op-ed piece by Dr. Indira Samarasekara, President and Vice-Chancellor from the University of Alberta, suggested in clear and compelling terms that "… in today's ruthless global marketplace … we must quickly and strategically increase our competitiveness, productivity and innovation or risk being left behind" (The Globe and Mail, Toronto, Ont.: Jan. 21, 2008, p. A15). There are many examples of universities seeking to enhance their ability to support strategic partnerships and projects; only a few are cited here:

- Carleton University has established *a strategic project office* led by a 'Chief Projects Officer' (<u>http://www.carleton.ca/cu/research/curo/ProceduresFinalDocument.pdf</u>).
- Curtin University of Technology in Australia has developed *a strategic alliance team* under the banner of the Office of Business Partnerships. The team is led by the Director

of Strategic Initiatives (<u>http://research.curtin.edu.au/local/docs/ORD-Organisation%20Chart%2009%2006.doc</u>).

- McGill University has created a specific strategic support team focussed on the McGill India Strategic Research Initiative program (<u>http://www.mcgill.ca/international/partnerships/</u>).
- The University of York has established, in the Planning Office, a *Strategic Projects Office*; each project identified as a priority is managed by a Strategic Project Steering Group (http://www.york.ac.uk/admin/po/cmte/estates/strategicprojects.htm).

In essence, these initiatives at York (UK), Carleton, Curtin and McGill, and the proposed new Strategic Projects Team at the University of Saskatchewan, represent a commitment to deliver appropriate support to strategic projects that are critical university-wide initiatives. (Note: At the University of York, a **strategic project** is defined as one where there is substantial risk to the University either in terms of scale or complexity. This definition is more expansive than would be considered here). The various teams and offices should be considered within the overall context of accomplishing the institutional strategic priorities; in other words, at the U of S, it is expected that the Strategic Projects Team will facilitate the way in which the institution organizes effective support to implement and achieve success in strategic partnerships and projects.

Vision

To enhance the University's pivotal role as a major contributor to the economy and innovation agenda in Saskatchewan through intensive, focussed support for selected strategic priorities and U of S research initiatives involving specific projects and partnerships with industry, government agencies, international agencies, and other postsecondary institutions.

Areas of Focus

The SPT will focus on areas for which the University's research strengths are internationally recognized, including a number of identified thematic areas (*Extending Horizons: University of Saskatchewan Research, Scholarly and Artistic Landscape*), such as:

- Environment, Resources and Sustainability,
- Culture and Society,
- Human and Animal Health,
- Indigenous Peoples, and
- Frontiers of Science and Technology.

Within these themes is a diversity of previously initiated, current, and newly proposed initiatives in water, energy, imaging, social justice, global change, environmental science and

sustainability, biotechnology studies, health and society, Indigenous studies, fine and performing arts, genomics and proteomics, and many others. As the University strategically prioritizes these and other research initiatives, the SPT will be charged with providing assistance and support to advance and establish desired and appropriate outcomes over the next four years coincident with the University's Second Planning Cycle (2008-2012).

Examples¹ of Strategic Projects/Partnerships at the University of Saskatchewan

Current:

- Canadian Light Source Operating Cost Initiative ongoing
- Consideration of Operating-Cost for other major facilities ongoing
- InterVac capital funding gap and operations beyond 2010
- India, China, Brazil (International Science and Technology Partnerships (ISSTP) Program – continued commitment to research and recruitment (Upcoming delegations include: India - March 2008; China - October 2008; Brazil - 2009)

Newly Initiated:

- Canada-California Strategic Innovation Partnership (CCSIP) \$60,000 commitment for January 2008 - July 2009 - key areas include: energy, infectious diseases, food safety, stem cell research
- New CFI Leading Edge Fund and New Infrastructure Fund Competitions (e.g., Analytical Microimaging Centre) – begin January 2008, EOI, NOI, full proposals October 2008
- Research Data Centre

Proposed:

- Mineral Research Centre
- Research Transition Facility
- Bioeconomy Centre
- Global Institute for Energy, the Environment and Natural Resources
- Stem Cell Cancer Stem Cell Research Initiative
- Social Sciences Research Laboratory and Knowledge Translation Office
- National organization of large research facilities
- Centre for Energy Strategies
- Institute for Transportation Studies

Operation

¹This is not an exhaustive list and a process will be developed to ensure all strategic projects identified by the University are included.

By promoting the capabilities of our scholars and researchers, and of our research centres and institutes within and affiliated with the University of Saskatchewan, the SPT will work with industry, government, and partners to ensure the success of existing and new programs of international stature, and enhanced opportunities for the application and commercialization of research. The Team will help to develop and apply effective methods to promote the University's research agenda (e.g., the SPT will aid in fostering strong interdisciplinary research).

The SPT will perform the following operations:

- Assist with the development of initiatives proposed by researchers which have been identified by the collegial processes of the University as being of strategic importance, by providing advice and proactive support to help advance the projects and integrate partnerships which will lead to successful securing of necessary external resources;
- Assist with securing operating funds and providing assistance in the establishment of project management and administration for large, long term initiatives;
- Adapt and implement promotional methods through the functions of the units of the OVPR (International Research Office (IRO), Innovation Program Unit (IPU), Industry Liaison Office (ILO), and Research Communications Office (RCO), and with the local, national, and international community.

The creation of the SPT is in response to the Strategic Projects/Partnerships Initiative as defined in the Office of the Vice-President Research Strategic Plan (2008/09 – 2011/12), and is in keeping with the Strategic Research Fund Terms of Reference (refer to Appendix 2).

Team Resources

The SPT will operate with an appropriate allocation from the University of Saskatchewan Strategic Research Fund which is administered by the VPR Executive Committee on behalf of PCIP. Additional resources may be provided through the Research Overhead Fund (ROF), the Indirect Costs Fund (following appropriate discussion by the Indirect Costs Advisory Committee), and the Canada Foundation for Innovation (CFI) Infrastructure Operating Fund (following appropriate discussion by the CFI Advisory Committee). These resources will be used to support new major strategic initiatives in such areas as water, energy, and social justice, and in CFI proposals for major infrastructure to support research activities.

Personnel

Vice-President Research: Executive Sponsor of the SPT with overall responsibility to lead the Team and provide accountability to PEC and other decision-making and consultative entities.

Assistant to the Vice-President Research: Manage Team activities, and provide operational leadership concerning initiatives and interactions internally and externally at the local, provincial, national, and international level.

Research Facilitators: The Team will initially be supported by the four OVPR Research Facilitators (Engineering and Science, Agriculture, Social Sciences and Humanities, International Research) with duties assigned as required to support key initiatives. A decision as to whether or not the Health Facilitator will be a component of the SPT will follow from the visioning currently underway by the Associate Vice-President Research (Health) and her team. The OVPR Research Facilitators interact directly with researchers to encourage research activities and to support the development of successful proposals.

Special Advisors: A potentially important mechanism will be the creation of a number of 'special advisor' positions for individuals with the capabilities to make unique contributions towards the advancement of one or more U of S strategic projects. These 'special advisors' will be added to the SPT on a term-basis, as needed, to achieve specific outcomes tied to the further development of the specific strategic project.

Consultants: In some instances, for short-term or specific tasks, consultants or consulting teams may be needed to support the strategic project development.

Outcome

The principle outcome of the SPT will be *to quickly advance to implementation* those strategic priorities identified by the appropriate decision-making entities on campus and in concert with the proponents of those initiatives. The performance of the SPT and individuals operating under the Team approach will be evaluated annually, and an annual report provided to the OVPR Executive for decision and distribution.

TERMS OF REFERENCE DRAFT

STRATEGIC PROJECTS TEAM Office of the Vice-President Research 14 February 2008

- To increase the effectiveness of the many strategic research projects and partnerships of the University of Saskatchewan.
- To help coordinate and facilitate linkages necessary to success of major institutional initiatives, including 'big science' and other major policy initiatives developed in response to federal and provincial priorities, as articulated, for example, in the national Science and Technology Strategy documents.
- To help manage, and to capitalize on, investments from the Strategic Research Fund (SRF).

Team Structure

Leadership

Vice-President Research or designate (Executive Sponsor) Assistant to the Vice-President Research Special Advisors (appointed as needed to support strategic projects)

Resource Personnel

OVPR Research Facilitators Administrative support

Implementation

Develop SPT terms of reference February 2008 Team meetings to begin 1 May 2008 Updates to OVPR at weekly VPR Executive Committee meeting Reports to PEC through VPR or VPF&A Liaise closely with: VPF&A, Government Relations, Global Relations, Research Communications, University Advancement, and other Departments and Offices, as required.

Funding will be allocated from the SRF; the SRF terms of reference will be reviewed once the Integrated Plan is completed (June 08) to ensure the Team concept and implementation is consistent with the Plan.

Appendix 1:

Partnerships are the order of the day

Indira Samarasekera. **The Globe and Mail**. Toronto, Ont.: Jan 21, 2008. p. A.15

Abstract (Summary)

Our global competitors have recognized this reality and have responded. India, a country that has struggled economically in the past, now has one of the most vibrant and diversified economies. During a recent visit there, I saw how this is transforming India's approach to R & D.

Full Text (863 words)

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The U.S., like India, is breaking down barriers between industry and academe. Now Canada must step up

Canadians have great expectations for the future. We want to be active players in the international arena, spearheading solutions to global problems, achieving breakthroughs in every field, creating and retaining ownership of international businesses, and winning Nobel Prizes.

This future could - and should - be ours. But in today's ruthless global marketplace - where our competitors are leaping ahead of us through innovative policies and edgy entrepreneurial partnerships - we must quickly and strategically increase our competitiveness, productivity and innovation or risk being left behind.

Indeed, in spite of the strength of the Canadian economy, we are losing our competitive edge, failing to significantly improve productivity. Compared with our competitors, Canada has too few innovators, and too little entrepreneurial drive to bring our own ideas to market.

What is the solution? Radical, original ideas do not arise out of thin air - they are the product of untold hours of thought, research and experimentation. To be leading innovators and competitors, Canadians need to develop a bold new approach to R & D that generates major scientific discoveries, spearheads creative advances in the arts and accelerates the technical ingenuity needed to turn discoveries into life-changing technologies, products and improved quality of life.

A paradigm shift in global R & D is under way. For much of the 20th century, companies such as Bell and General Electric conducted their own basic and applied research. Many fewer companies do so today. Basic and applied research is too risky and time-consuming for the quick returns the market demands.

Yet, we cannot forget that discoveries arising from basic research seed innovation and change lives. The discovery of the transistor and laser in Bell laboratories led to the information technology revolution; Watson and Crick's discovery of the double helix structure of DNA lies behind the latest advances in biotechnology.

Research today - in cutting-edge technologies such as IT, biotechnology and nanotechnology - requires specialized equipment and highly trained personnel, best supported by universities.

Translating this research into commercially viable products and processes is best handled by expertise found in business.

Our global competitors have recognized this reality and have responded. India, a country that has struggled economically in the past, now has one of the most vibrant and diversified economies. During a recent visit there, I saw how this is transforming India's approach to R & D.

In India - and elsewhere - highly flexible, collaborative partnerships, have changed how postsecondary institutions and multinational conglomerates, such as the Tata Group, work together. Agreements can involve faculty and graduate student grants as well as infrastructure support for the university. Companies gain access to state-of-the-art equipment while their employees have the opportunity to work in university labs, sometimes earning graduate degrees on the job.

Industry investment in university research is not new, but this kind of integrated partnership between industry and universities is. Intellectual property rights and issues such as academic freedom and academic publication - long considered insurmountable obstacles to such partnerships - have been resolved through a variety of creative mechanisms suited to particular agreements.

The United States, like India, is also moving in this direction and breaking down similar barriers between industry and academe. Companies such as Intel, Exxon Mobil, Chevron, GlaxoSmithKline and BP have established highly interactive relationships with universities across the U.S., investing millions in basic and applied research in return for greater access to university laboratories and expertise.

In Canada, the kinds of integrated partnerships developing in India and the U.S., however, are only just emerging. In one example, Xerox Canada has partnered with the National Institute for Nanotechnology at the University of Alberta through a combined investment from both private and public funds. Xerox researchers, university faculty, graduate and undergraduate students are working in the same facility, enabling a seamless exchange of ideas and personnel between the two sectors.

Agreements such as these are promising but only a beginning. Alberta, with its economic strength, has the resources to become a major centre of research excellence - a global "supermagnet" for the world's top talent that will have a positive impact on the research culture and knowledge economy of the entire country.

How can we make it happen? Increases in funding will help, but determined strategic planning is equally vital. Universities, government and industry must tackle critical questions: What kinds of specific, directed investment in R & D will advance Canada's capacity to be a global leader? What can governments do to encourage the right kinds of investment? What new partnership models will maximize the R & D strengths of both universities and industry?

A future in which Canadians are world leaders in research, business, industry and the arts will only be possible if today's decision-makers have the will and determination to seek answers to tough questions. Like our competitors, we must think radically - to take risks in a world that no longer accommodates those who are comfortable waiting for the dust to settle. The future can be ours. Now is the time to make it happen.

Credit: President and vice-chancellor of the University of Alberta

Appendix 2: Strategic Research Fund Terms of Reference

The Strategic Research Fund is intended to provide support to enable the University of Saskatchewan to sustain operations to ensure "research readiness," to accommodate research activities, and to provide support and services for research initiatives. Support will be available for a maximum of 5 years with regular reviews that could alter the level of support received during that 5 year period.

The Strategic Research Fund cannot be the sole source of operating funds. It is expected that research grants and contracts would fund research activities and the operational costs associated with that research. Research initiatives must support the entire activities of the project and recover Indirect Costs or Overhead to support ongoing infrastructure.

Eligibility:

To be eligible to receive an allocation from the Strategic Research Fund, proponents must be:

- Approved by the Centres Subcommittee (a subcommittee of the Planning Committee of University Council) and report to the Vice-President Research as a member of the Centres Forum.
- Actively pursuing or holding a large multi-disciplinary research grant(s) or contract(s).
- Operating with a multi-year plan including clearly identified expenses, incomes, and governance structure.
 - Expenses could include researcher, technician and support staff time or operating costs (e.g., utilities, maintenance, renewal, materials and supplies, etc.).
 - Incomes could include grants, contracts, or service fees.
 - Governance structure includes a reporting mechanism to the Vice-President Research and the presence of an Advisory Board.
- Integrated with the University's strategic directions, foundational documents, and Integrated Planning process.

Procedures:

Requests for funding through the Strategic Research Fund must:

- Outline eligibility as per the above criteria,
- Identify the purpose of the funding requested, and
- Outline tracking and accountability measures that will be provided to the Office of the Vice-President Research.

Applications will be requested by the Office of the Vice-President Research on an annual basis. Funding recommendations will be made by the Vice-President Research Executive Committee (recommendations to be subject to a process under development by the Task Force on the Management of Centres) and approved by PCIP. Typically, funding will be available consistent with the University's fiscal year.

Appendix 3: Carleton University Procedures for Establishing and Evaluating Research Areas for Strategic Development²

OVERVIEW AND BACKGROUND

In order to compete and contribute in an increasingly competitive and complex research environment in Canada, the University must have the capacity to strategically focus on the development of its research strengths. The University Priorities and Planning Taskforce explicitly recommends that "Carleton University must be strategic in determining those areas of research excellence to which it is prepared to give institutional priority and support" in an effort actively to develop and promote a particular research-intensive agenda that has a national and international reputation.

Such an approach is not intended to diminish the importance of diverse areas of research, and indeed, such diversity contributes to the rich intellectual environment of an academic institution. This rich intellectual environment enables institutions over time to focus, profile and support different fields of excellence. Strategic development is intended to complement the support that we provide to the research enterprise at Carleton. If there are particular research areas of strength in which an influx of resources could serve as the catalyst to transform the area into a self-sustaining field of excellence, the University needs to identify and promote those strategic areas.

Because any efforts to promote a research agenda are necessarily dependent on the motivation, initiative, and commitment of research faculty, it seems reasonable that:

- although the active set of areas for strategic development will not necessarily be inclusive of all faculty at a given point in time, it is critical to ensure that all faculty have a voice in defining those priorities. The present document outlines the criteria and procedures for identifying areas of strategic development in an effort to ensure transparency and accessibility of the process to all Carleton faculty and senior administrators
- because research is not a static enterprise, the procedures need to incorporate a capacity for evolution and change over time. As the number of areas for development at any given time needs to remain limited, an integral aspect of this document is to articulate criteria and procedures for evaluating the appropriateness of continued designation as a strategic priority

In proposing areas for strategic development, particular attention should be paid to the term 'development'. Carleton may have any number of research strengths, as is evidenced by the existence of vibrant research centres, and the outstanding work of individual researchers in their own right. However, the strategic development of particular fields involves providing the necessary support to transform and maximize the capacity of a field to attain a national, even international, reputation for excellence.

² Document found at <u>http://www.carleton.ca/cu/research/curo/ProceduresFinalDocument.pdf</u>

Objectives of Strategically Developing an Area

It is anticipated that the effect of strategically developing an area is one that is transformative in terms of productivity, funding, collaboration, making a contribution to society, and reputation. There are several objectives or outcomes that are anticipated or sought when an area is identified for strategic development. These include distal objectives that can serve as markers of the success of the area, namely achieving:

- an international reputation for the intensity and quality of research and innovation in the strategic field
- a research environment and focus that actively engages student participation
- a productive and active network of collaboration between researchers across faculties, and scholars at other universities and/or institutions, domestically and internationally
- partnerships and links outside of the academic community, including knowledge transfer
- external funding that reflects a multi-disciplinary and/or multi-institutional approach

There are also proximal objectives that represent the milestones that provide direction for how to reach these broader goals, including:

- establishing a vibrant internal network and community of researchers in order to heighten awareness of individuals and units with common interests and the potential for collaboration
- providing an umbrella to connect these research endeavours with current and/or new graduate and undergraduate programs
- enhancing the visibility of research that provides the core building blocks to establishing a solid reputation, as well as the unique configurations that provide Carleton with a niche profile
- actively targeting and attracting the interest of external agencies (local, national, and international) for partnerships, knowledge transfer, and funding opportunities

What is the difference between an area of Strategic Development and a Carleton University Research Centre?

Research Centres represent an integral part of the facilitation and promotion of collaborative research on campus, and as such, their promotion is a focus of the Office of the Vice-President (Research and International) (OVPRI) in its own right. The primary differences are of scale and scope. A strategic area is a long term, University wide strategic thrust, which is linked to academic program development, entails an investment of resources, and represents the public profile of the University – an area in which Carleton will actively seek to position itself at the forefront of the research community.

Related to the notion of scale, a Carleton University Research Centre is required to have a welldefined management structure and identifiable membership. In this sense, a Research Centre is closer to being like a University department. An area for strategic development will have a steering committee, but the role of this committee is to guide the area through collaboration with senior management and the researchers. 'Membership' in a strategic area is a matter of self-selection through individuals' research interests, and is likely to evolve over time, and to vary in the extent of commitment and contribution.

It is likely that an area of strategic development will encompass one or more Carleton University Research Centres. Conversely, once a strategic theme is established, new Research Centres may evolve to reflect particular sub-themes and collaborative focal points that come under that thematic umbrella.

It is also possible that a Research Centre could grow into an area for strategic development. If it was very successful at attracting funding, had acquired a reputation for research excellence, crossed multiple Faculties, included a critical mass of researchers, and included strong student participation, it might provide the foundation for a strategic area. This said, such an area may not require the attention of the institution to achieve a transformative effect, and may operate as a field of excellence without such support. It cannot be over-emphasized that the notion of development is to achieve a transformative impact, and is not intended to diminish the fact that there are many areas of excellence at Carleton that do not require such support to achieve international status and visibility.

How will the proposal process work?

Identification of areas for strategic development can be conducted in two stages. In the **first stage**, a brief proposal is submitted that identifies a potential area for development, and provides some justification for why it might merit consideration for strategic development. The purpose of Stage 1 is to get the University's attention, and to acquire support to explore the transformative potential of a field of research. Stage 1 proposals can be submitted at any time, and will be reviewed at least three times annually.

The **second stage** for identifying an area for strategic development will involve a fuller proposal that delineates the existing strengths at Carleton across the Faculties, indicates the capacity for collaboration, the role of students, involvement with external communities, funding opportunities, and the potential for a competitive edge. At this stage, a vision for how the development of the field at Carleton would have a transformative effect must be clear. Stage 2 involves a full justification and vision for the capacity of the field to lead at a national or international level. Initially, Stage 2 proposals will be due on June 1. Once the University is supporting a full slate of areas for strategic development, new proposals will only be accepted in response to a specific Request for Proposals. Ongoing and proposed areas of strategic development will be reviewed annually.

Who may submit a proposal?

Any faculty member (preferably several faculty members as a team) may submit a proposal, as may any Dean or Senior Administrator. Clearly, there needs to be sufficient motivation, enthusiasm, and leadership within the research field to commit the time and effort necessary to champion an area for strategic development.

What are the criteria that will be used for deciding whether a proposed area should be the focus of strategic development?

Several factors will be taken into account in identifying research areas for strategic development. Those listed below include and expand on the criteria listed in the University Priorities and Planning Taskforce report. These include:

- the **need** for the research, at present and in the foreseeable future, as articulated by Carleton faculty and/or external agencies
- the existence of a **critical mass of faculty** at Carleton to champion and support any particular initiative
- exploitation of an **existing strength**, demonstrated by researchers with proven records of research excellence, representing faculty at various career stages who are actively involved in the training of graduate students
- the link to current undergraduate or **graduate programs**, or to an explicit plan for developing such programs. The Strategic Academic Plans of the University and of the Faculty of Graduate Studies and Research will be taken into consideration in assessing this
- the incorporation of a **multi-disciplinary**, **collaborative and international** scope of research themes and programs
- opportunities for developing partnerships and collaborations in the **National Capital Region**, with institutions including federal government departments, research organizations, cultural institutions, local industry, and other post-secondary institutions and public-sector service providers
- potential for **knowledge transfer** or commercialization.

THE PROCESS OF DEFINING AN AREA FOR STRATEGIC DEVELOPMENT Stage 1: Preliminary Exploration to Identify Areas for Strategic Development

Stage 1 provides an opportunity to explore the viability of a given field to establish Carleton as an international leader in the area. This Stage is preliminary to the development of a full Stage 2 proposal. Stage 1 proposals can be submitted at any time and will be reviewed at least 3 times per calendar year.

If approved at this stage, OVPRI will facilitate opportunities for broader interactions and discussions among faculty across the campus (e.g., blue-sky meeting(s)). The goal of these meetings would be to establish the existence of sufficient cross-faculty interest and momentum in the field, facilitate the articulation of common themes and research goals, and allow the researchers to determine whether University support for the development of the area would be timely and transformative in terms of enhanced funding opportunities (both industrial and other), collaborative partnerships, and student engagement. One possible outcome of these efforts might be the establishment of a Carleton University Research Centre that could in itself evolve over time to merit strategic development.

To acquire OVPRI support to develop these exploratory opportunities, a brief proposal (MAXIMUM LENGTH OF 6 PAGES) should be submitted through the Strategic Research Projects Office of OVPRI, and include the following information:

- a brief description of the field of research and a vision of the future potential. This description should identify external funding opportunities that would be facilitated through a collaborative approach. The list of potential opportunities might include government funding from all levels, industrial partnerships, funding from foundations or charities, or any other source
- the relevance of the field to various communities, at the local, provincial, national, and international levels. The extent to which research in this field has the potential to make a significant contribution to addressing social problems or improving the human condition and the world we live in should also be addressed
- identification of established researchers (senior and junior) from different Faculties at Carleton who would be willing to champion the area
- evidence of interest from students (e.g. existing student organizations, programs, graduate student involvement), and how developing this area might include students or enrich their experience at Carleton
- a rationale for why it would be in the best interests of the University to promote this area, and what tangible and intangible benefits could be expected to accrue
- a statement of the activities that would allow the area to consolidate sufficiently to advance its research agenda and to explore whether full-blown development is merited at this time

These proposals will be evaluated by the Associate Deans (Research) and a representative of OVPRI (i.e., the Research Advisory (READ) committee). This committee, chaired by the Vice-President (Research and International), will evaluate the viability of the proposed area as having potential for strategic development, along with the intrinsic value of the area engaging in

exploratory activities. In effect, the Stage 1 activities should be seen as having merit in and of themselves to advance the area, irrespective of whether or not the area is ultimately identified for strategic development. READ will make a recommendation to the Vice-President (Research and International), and will also provide feedback to the applicants regarding its review and decision.

Stage 2: Proposal for Full Development Support

The goal of developing strategic areas is to establish Carleton as a world leader in those fields of research. Clearly this means that these areas must be built on existing strengths, where Carleton is capable of creating a competitive niche for itself. In addition, the notion of strategic development is that additional support for the area would have a transformative impact in terms of the productivity, momentum, visibility, and funding of the research, along with maximizing opportunities for student engagement. Initially, Stage 2 proposals will be due on June 1. Once a full slate of areas for strategic development is being supported by the University, proposals will only be accepted in response to a specific Request for Proposals. Ongoing and proposed areas of strategic development will be reviewed annually. It must be recognized that the number of areas that can be supported at any given time must be limited to ensure that they are appropriately resourced (financially and otherwise) to achieve the stated goals. Thus, once a critical mass has been established (4-5 areas), further fields will be added only as fields that were previously identified as meriting development are reviewed (annually) and have either acquired sufficient momentum to be self-sustaining without extraordinary institutional support, are unable to achieve such momentum despite such support, or they have come to a point of timely demise.

Proposals for an area of Strategic Development should include the following:

- A description of the field, its current research directions, themes and sub-themes. There should be evidence that, even at the level of sub-themes, there are cross-disciplinary collaborations. Diverse disciplinary parties must agree on what the proposed target research area actually covers, what is included, and maybe as importantly, what is excluded. Where ideological variations exist within a field, these differences need to be articulated, and a plan for a balanced and respectful development of the field identified
- A description of the faculty who are currently involved in supporting the proposal. These faculty must cross the academic Faculties, reflect the range of junior to senior ranks, and demonstrate strong records of research (i.e., publications, grant funding), thereby providing evidence that the combined strengths of the researchers holds considerable competitive promise
- A statement of how the area will be structured and the activities and initiatives administered and managed. This includes provision for a steering committee (that must include the Vice-President (Research and International) as an ex officio member), and evidence that there is a critical mass of researchers to 'champion' initiatives. The steering should include a plan for how the committee will evolve to eventually incorporate external membership or perspectives
- Any connections to current undergraduate or graduate programs should be identified, along with potential opportunities for program development

- A statement of the short-term and longer-term (5 year) goals of the area. Although clearly a leading edge reputation in the field is a key goal, there needs to be a capacity to evaluate this reputation, and a time frame in which goals are accomplished. A list of tangible performance measures and metrics should be provided, such as (but not limited to) increased research grant funding (identify potential target sources of funding), collaborative outputs, interdisciplinary connections, programs developed, and student recruitment (see Appendix A for examples of some possible metrics). The metrics can be either subjective or objective, and particular milestones may be placed along a timeline. However, these metrics must be sufficiently concrete and realistic to provide a solid basis for evaluating progress and value, and should also indicate the point at which the area can be regarded as self-sustaining, and the time frame in which this can be achieved.
- A description of how this field of research fits competitively with other academic institutions. This includes both the unique features that might provide Carleton University with a market niche, as well as commonalities that might be capitalized on through interinstitutional collaborations and sharing of resources
- A review of how the proposed area fits with Carleton's current strategic research priorities, and other areas of strategic development. Consideration should be given to whether the area is sufficiently different from other areas of development to merit a distinct profile (rather than being folded into another area as a sub-theme), whether it balances Carleton's public profile, and whether it fits with institutional values
- A description of the social, cultural and/or industrial relevance of the field, both currently and into the foreseeable future. Identify the external agencies that would be interested in seeing this research evolve, and the potential local, national, or international linkages that could be developed to result in the full realization of this research area
- An indication of foreseeable challenges in bringing this area to its full potential. Identify possible gaps in expertise or current resources, and any external factors that might limit or challenge the success of the area
- Signed statements of support from all relevant Faculty Deans
- A signed statement of commitment from the core faculty involved in putting forward the proposal
- Letters of support from external agencies (industry, government, community organizations, etc.) attesting to factors such as, the importance and need for research in this area, the niche that development of this field would fill, the perceived strengths at Carleton that position it well to fill that niche, and the interest in engaging with researchers and students in this area at Carleton
- Names and contact information of three potential external referees from other academic institutions who have the expertise to evaluate the strategic and scholarly merit of the proposed field

• A statement of expectations of the resources and support necessary from the institution to develop the field to its maximum potential (see Appendix B for examples of resources currently being considered). These should be tied to the goals specified. A timeline for the necessary resources should be included, along with an indication of which resources are critical to the area's success

Evaluating Stage 2 Proposals

Given the extent of the University's commitment to areas identified for development, evaluation at Stage 2 proposals will be conducted by a committee that is intended to represent broad institutional interests. This committee will comprise:

- Associate Deans (Research) from each regional Faculty, and the Associate Dean (Programs and Planning) from the Faculty of Graduate Studies and Research
- 9 additional faculty reflecting the different disciplinary areas of the University's research endeavours made up as follows: FASS (2 representatives), FPA (2 representatives), FED (2 representatives), Science (2 representatives), and Business (1 representative). These representatives will reflect both junior and senior faculty who have strong records of research. These representatives will be selected by the Vice-President (Research and International)
- A graduate student at the Doctoral level
- The Vice-President (Research and International) (Chair of the committee)
- The Provost and Vice-President (Academic) or a representative (ex officio)
- The Vice-President (Finance and Administration) or a representative (ex officio)

The committee will draw upon external expertise as necessary.

The committee's evaluation will result in a recommendation of whether a proposed area is appropriate for strategic development. In addition, the Evaluation Committee can provide feedback regarding the proposed plan for development, and in particular, the performance indicators and milestones that will form the basis of the annual review. Following the Committee's evaluation and recommendation, the Vice-President (Research and International), in consultation with the University Senior Executive and Deans, will make a final selection.

Annual Review

An area of development would be evaluated regularly to assess whether it is making satisfactory progress towards its goals. On an annual basis, the steering committee and the OVPRI Strategic Research Projects Office will each be expected to submit, no later than June 1, a report to the Vice-President (Research and International) that will be reviewed by the Evaluation Committee. These reports will describe the activities taken to promote the area, and the success of the area in achieving progress and in achieving the milestones established at the outset of its confirmation as an area for development.

The OVPRI Strategic Research Projects Office report will:

- delineate all activities supported by OVPRI to promote the area
- identify activities to promote partnerships and inter-institutional collaborations
- evaluate whether development of this area contributes positively to performance metrics OVPRI has set in relations to research productivity at Carleton
- provide metrics on the visibility of the area (e.g., media pick-up) within the previous 12 months
- provide a statement of the financial account for the previous 12 months that reflects the research revenue accrued to the University in this area (e.g., overhead, indirect costs). This should include identification of indirect benefits derived as a result of an increase in funding associated with development of the area (e.g., additional CRCs)

The Steering Committee report will:

- state how the area has met or exceeded its objectives, or how and why it revised its original objectives, where relevant. This statement must be linked to the milestones stated in the original proposal for the given time frame. Where particular milestones were not met, there should be some discussion of why this happened, and future plans to get things back on track
- describe any positive outcomes achieved that had not originally been anticipated
- indicate the milestone goals for the upcoming year, and any changes regarding the longer term research activities and performance goals
- indicate whether alternative or additional support from the University is necessary to achieve those goals

Annual reports will be used to identify, in a broad sense, opportunities for the University to support the activities of the area further, as well as to review the success of the area and the continued need for extraordinary institutional support to achieve maximum productivity. The Evaluation Committee may seek input from external sources. The Evaluation Committee will provide a recommendation to the Vice-President (Research and International) regarding the continued designation of the area for strategic development. If concerns are flagged in this review process, these will be shared with the Steering Committee, which might be asked to meet jointly with the Associate Deans (Research) (as Evaluation Committee representatives), to review its plans and activities. Following this meeting, the Associate Deans will make a final recommendation regarding the continuation or termination of supporting the area for strategic development.

Appendix A

Some <u>possible</u> metrics that might be used to evaluate the increased success of research in the area of strategic development (this list is for example purposes, and is not intended to be exhaustive):

- Research Dollars awarded (money coming in)
- Funding for graduate students and PDFs
- Faculty involved in this area
- Graduate students attracted to Carleton/involvement in this area
- Undergraduate students attracted to Carleton/involvement in this area
- Numbers and quality (citations, impact of journals) of peer reviewed publications, books etc of researchers and students in the area
- Number of visiting professors
- Number of visiting delegations
- Number of government contracts
- Number of industry contracts
- Number of start up companies
- Number of IP agreements made (inc patents) and number of invention disclosures
- Number of collaborations with outside institutions
- Number of articles about this area in the press
- Amount of dollars donated through advancement into this area
- Number of collaborative or network grants
- Participation in networks led by other institutions
- Establishment of new academic programs
- Perception of what Carleton's reputation in an area is
- Comparison of how this area is doing in comparison to other institutions
- Internal and external visibility
- Impact of research
- Quality of researchers
- Extent of collaboration and co-supervision
- Knowledge transfer activities and outputs
- Community outreach and engagement

Appendix B

Potential Resources to Develop an Area Strategically

By identifying an area as a priority, resources can be channelled in a manner that will maximize the success of strategic areas. This said, the success of a strategic area is ultimately determined by its ability to create its own momentum to become self-sustaining. Certain resources might be relevant to promote the success of strategic research priorities. Thus, there will be institutional commitment to:

- provide resources for enhanced communication potential, possibly including (a) a dedicated website with links to relevant resources, such as sources of funding, information websites, and journals (b) establishing the procedures and mechanisms for an open source publication in the field (c) creating a listserv to permit on-line discussion groups and information exchange
- provide support for workshops or symposium that facilitate collaborative research opportunities, and in particular those that include external partnerships
- provide support for organizing information sessions that promote awareness of strategic and collaborative funding opportunities
- identify potential partners and establish communication/meetings to facilitate the partnering process
- provide assistance in large-scale funding applications, and on the oversight of administrative aspects of funding initiatives and maintenance
- provide support for knowledge translation, innovation, and commercialization
- provide seed funding to initiate multi-disciplinary and/or multi-institutional projects that have a clear trajectory toward successfully attracting external funding
- pursue and earmark funds to attract and support postdoctoral fellows, Visiting Professors, or 'experts'-in-residence
- pursue opportunities to create or attract research chairs that will facilitate the consolidation of a team approach