

MAKING CHANGE:

THE STRATEGIC PLAN FOR THE UNIVERSITY OF GUELPH

THE FINAL REPORT OF THE STRATEGIC PLANNING COMMISSION TO THE PRESIDENT

June 20, 1995

From the president

The final report of the Strategic Planning Commission to the President represents the culmination of a 19-month, highly consultative process. Members of the University community and friends of the University of Guelph came together to examine our mission and future direction in the light of changes in our external environment and implications for the funding of universities. The Commission's charge was to fashion a vision of continuing excellence for the institution.

The Strategic Plan submitted to me contains many recommendations for change, and builds on Guelph's strong sense of heritage. It is grounded in the hard work and reports of many committees involving hundreds of students, staff and faculty members, and has benefited from the advice and insight of alumni, retirees, and community leaders in the public and private sectors. A wide range of individuals and groups within the University contributed their views on the March 7, 1995 interim report, thereby helping to shape the final document.

I am grateful to the Commission's Chair, Dr. Bev Kay, its members, resource people and staff for a thoughtful, comprehensive report that will help the University chart its future course in a manner which respects its basic mission and the welfare of its students and employees. I appreciate the support of committees and individuals who contributed to the work of the Commission, demonstrating their eagerness to help Guelph maintain its place among Canada's leading universities.

Following a period of reflection and discussion, it is my intention to identify and assign priority to those recommendations receiving my endorsement, and to send them as early as possible to the appropriate governing bodies for their consideration and approval.

A complete copy of the report is being sent to the Senate for its information, and copies will be distributed on campus. Copies will also be made available to entering and returning students in September. There will be an opportunity for all members of the University community to submit their comments to the appropriate governing bodies, including the Senate committees charged with making recommendations to Senate.

The Strategic Plan, once approved, will serve as a framework for planning and implementation efforts at every level of the University.

Mordechai Rozanski

I. OVERVIEW

A. THE STRATEGIC VISION

The University of Guelph recognizes that the most successful universities of the next century will be more efficient, more flexible, and more intensely interactive than the universities of the past. To achieve our goal of ever-increasing excellence in scholarship, this community will act on that recognition with energy, imagination, and a sense of common purpose. We embrace as our primary strategic directions an increasingly learner-centred approach to education and the fostering of research-intensive. We believe that these two strategic directions are largely aspects of one another, and that to succeed in one we must succeed in the other. Together, they reflect the mission of the University with respect to life-long learning. We embrace three additional strategic directions — collaboration, internationalism, and open learning — that will enhance flexibility and interaction, extend the University's reach, and support our highly ambitious learner-centred, research-intensive agenda.

A truly strategic vision requires that we take a hard look at the environment within which we will be operating. Among the external forces identified as having major importance for the University are the following:

- an economy saddled with budget deficits at both the federal and provincial levels that will severely constrain resources available to support education and research;
- the globalization of economies and ever-increasing flow of ideas and information across national boundaries;
- revolutionary advances in computing and networking technology — together with opportunities arising from the convergence of voice, data, image, and video technology — that will effect profound change in modes of teaching and learning (as well as research and administrative procedures);
- the growing complexity of relations between people and their environ-

ment at scales ranging from local to global, and so the need for interdisciplinary approaches to complex problems;

- the demand for universities to be accountable in terms of money spent and "value added;"
- the changing composition of the population and labour force of Canada — e.g., increasing age and cultural diversity of the population — and a growing demand for life-long learning as well as accessibility and flexibility in higher education;
- major changes in private and public sector workplaces, such as 'flatter' bureaucratic structures, which require of employees not only disciplinary expertise but also high levels of competence in such general skills as problem-solving and writing.

The interaction among these forces will have important consequences for the University of Guelph and for higher education generally. The basic conundrum is clear. Although demands upon universities are increasing, public resources are dwindling; in the catch-phrase of the day, we are being asked to do more with less. These forces also point to a future of greater intellectual and global interdependence, rapid change, and the need for greater flexibility and improved articulation in the whole of our educational system. But these two fundamental realities — increasing demand/dwindling resources and a shift to interdependence — combine to suggest at least part of the answer to our conundrum. To survive and prosper in this climate, universities must forge closer and more extensive links with partners of many kinds, including business, government, community organizations, and one another. To accommodate the reduction in staff and faculty numbers that is a consequence of budgetary constraints, to preserve excellence, and to meet societal needs, we must — through collaboration and the wisest possible use of technology, time, and expertise — become more efficient.

Attention to the change these external forces will require of us underlies the whole of the strategic plan. Perhaps most striking is the clear need to educate our students for a future of life-long learning. Despite the difficulty of the challenge, and our deep concern over the decline of government support for post-secondary education, there is also cause for excitement. The University of Guelph is in many important ways better positioned than most universities in Ontario and Canada to meet the challenges of the future. We will begin the next phase of our journey from a position of impressive strength, with a firm

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understanding of our social responsibility and of our power to shape change through the discovery, sharing, and application of knowledge.

This University's strengths in the areas of agriculture and veterinary medicine, for which we have particular responsibility in Ontario, are a critical part of our broad strength in the life sciences. Our special, continuing relationship with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has been a major factor in the evolution and important achievements that have occurred within these areas of study. Our distinctiveness and our stature reside also in a constellation of particular strengths across a wide range of disciplines in the physical sciences, social sciences, and humanities. While such breadth defines a comprehensive university, and is critical to work between the disciplines, the wide-ranging strengths we have are less common. Guelph differs from most other universities also in its strong orientation toward service, in the magnitude of its research effort, in its impressive international links, in the synergy that takes place here between the discovery and application of knowledge, in the support we offer to one another, and in our dedication to the education of the whole person. We are, in short, a decidedly progressive and humane university.

Building on *Toward 2000*, the University's previous planning document, we now propose a vision of **Making Change** in the most idealistic and practical of ways. We will achieve efficiencies both large and small and make a concerted effort to diversify our sources of funding and support, because in the absence of such pervasive practical change it will not be possible to make the great strides we desire in education and research. And we will alter in some respects our approach to education and research, bringing them closer together in a more fully realized vision of this University as a community of scholars. But we embrace change most importantly because making change is inherent in the fundamental purpose of the University.

Our core value as a university is the pursuit of truth, which takes us into the past, the present, and the future. This journey is an intellectual one, changing the minds of those who participate in it, and creating the potential for positive change in the world. It is a journey we embark upon as individuals, and that empowers us as individuals. What it reveals, however, increasingly, is the need for community and the critical importance of learning from one another. This truth has become a clarion call, as we near the end of the 20th century; and it is one the University of Guelph intends to heed, through strengthening interdisciplinary activity and functioning more effectively as a learning community. The more we learn, the more we see that what others have learned impinges upon our own areas of interest. The more we learn, the more we recognize that we are journeying through intensely interactive terrain, and that the future of society

and of the planet depends upon our understanding the complexities of that interaction.

While such interaction is dependent upon wide-ranging disciplinary expertise, no single university can do everything. We must all make choices. A great university must also **change**, in response to challenges and opportunities; it cannot get there from here, or make its optimal contribution to the larger journey, without changing. Its educational and research programs must evolve to reflect the changing needs of society and the particular capabilities of its people. To speed such evolution, its academic structures too must be interactive and open to change. Guelph has become a distinguished comprehensive university, and we are determined to retain the intellectual flexibility, the power to evolve in new directions and to see the larger map, that this reality affords us. At the same time, we have an enviable degree of focus arising from particular areas of emphasis within each broad cluster of knowledge, and from our special responsibility in the areas of agriculture and veterinary medicine. We will retain and where appropriate augment that quality of focus. But we will not condemn ourselves to mediocrity or stasis by remaining focused always on the same things. We will make the hard choices, as well as the many small ongoing changes and the occasional dramatic shifts, that **must** be made by a university that aspires to greatness. We dedicate ourselves now to a major reconsideration of our programs and structures, to making appropriate change, and to positioning ourselves even more strongly for a future of change.

Vigilance is required to maintain both breadth and depth, and the appropriate balance between them that is a precondition of institutional excellence. We will exercise that vigilance most intelligently by recognizing that resources are limited, that the needs and the level of quality in particular areas will shift over time, that superior achievement is not evenly distributed throughout the University, either within particular areas or between them, and that superior achievement may or may not be related in a compelling way to levels of institutional support. Quality can never be regarded as a simple function of expenditure; it arises from the dedication and talents of our people. Resources must nevertheless be allocated in a manner that reflects differential need. In allocating scarce resources, we will support necessary activity across all academic units and (to the extent possible) will provide differential support for excellence that requires such support. It will not be possible to support a full range of activities in all academic units, or to invest additional resources in all units where a lack of resources has been seen to forestall or inhibit excellence in the past. We will, however, review all units carefully on an ongoing basis. The fundamental purpose of the review process will be to assess needs and opportunities and to alert the community to ways in which we can improve.

Non-academic units will also be sub-

ject to an ongoing process of review, to assist the aim of self-improvement. Resources will be allocated as a sequel to annual reviews, in support of all necessary activity. Where additional resources are made available to any unit, the measure of need will be the extent to which such allocation is critical to the fulfilment of our academic mission. It is no longer possible to assert blithely that we will achieve excellence in all that we do; fiscal realities suggest that in some of our necessary activities — both academic and non-academic — it will be a struggle to achieve a satisfactory level of service. Certainly, the range of services provided will be subject to painful scrutiny. But we do claim absolutely that all members of our University community (and all areas) should aspire to excellence, and that it is incumbent upon the University to recognize and reward exceptional merit.

In more careful performance reviews for faculty and staff, the University will recognize such merit, including contributions made in support of the strategic plan. While this expression of purpose will help to speed us in our strategic directions, our people must also be fueled for the journey. Major expenditures, and thus increased efficiency and an expansion of our resource base, will be necessary to prepare and equip our people for their future work, particularly with respect to significant changes in the way we carry out and support our academic mission. Some of this expenditure, and major anticipated benefits including improved performance and eventual cost savings, will relate to the increased and increasingly wise use of technology. Some will be needed for training. And some will be required to create a Learning Enhancement Fund and a Research Enhancement Fund, each of which will be accorded substantial base funding at the earliest possible date. But sticks, carrots, and technology are far from being the whole story. The community will be energized by a shared, rather than an imposed vision. It cannot be energized without the excitement and commitment of the many strong-minded, talented individuals who make up this University, and by their determination to value, assist, learn from, and inspire one another. The achievement of our strategic vision will depend in the first instance on the wisdom of that vision and the willingness of the community to embrace it.

What, then, are the essential features of the strategic vision? Given a modicum of luck, and immense dedication, what might the University of Guelph look like five or ten years from now?

1. We envision a future of increasing pride in the University of Guelph, and a stronger sense of community. We will remain a mid-sized, significantly residential university in which we greet one another by name, and care for one another. Our community will be more diverse, and more appreciative of diversity. We will work with a sense of adven-

ture and camaraderie in an atmosphere of trust. Members of the senior administration, faculty, staff, students, alumni, and retirees will have formed closer, more deeply committed relationships and be working together to strengthen the fabric of the University. We will know that our personal strengths are valued, and that there are opportunities for all of us to develop in new ways.

2. We will continue to work hard. But our daily work will be more carefully considered, to ensure that what we are doing counts, that it cannot be done more efficiently another way, and that we have time for reflection and creativity. Teaching loads will be more variable, and more sensitive to a broad array of teaching tasks; workloads will be more equitable. Unnecessary activity and bureaucracy will be sheared away. Technology will have introduced critical efficiencies. Policy will be developed in a timely, efficient, coherent, and collegial manner.

3. Counselling and academic advising will be more effective. Library resources will have improved markedly as a result of inter-institutional collaboration, a global information infrastructure, and document delivery. Most, and perhaps all, students will own computers. Extracurricular activities will support our academic programs in a more focused and imaginative way. New programs will be under way, or in the planning stages, and there will be many more collaborative programs. We will have fewer specializations and fewer courses, but the curriculum will be more flexible and more carefully articulated to account for individual student trajectories. We will spend less time in lectures, but lectures will be an important part of a more diversified set of learning experiences — including computer-assisted learning, interactive video-linked classes, seminars, labs, peer-group learning, learning in vocational settings, tutorials, and collaborative and independent research. The idea of the course as a box with a fixed number of contact hours, carrying a fixed number of credits, will be gone. There will be more interaction between undergraduates and graduate students, and a greater understanding of the research-learning link. A modular approach to curriculum will have become common, and the principle of 'multiple use' — as between distance and other courses — will be in force. With the assistance of professional staff, faculty will have expended heroic effort in the development of excellent course materials and a thorough-going review of curricula. Our distance offerings will be more numerous and better. We will have become more accustomed to discussing curriculum and pedagogy, and be less inclined to insist on the autonomy of our individual courses. The level of excitement with regard to teaching

and learning activities will have substantially increased, and teaching will be valued more highly within the University.

4. The Learning Objectives of the University — as articulated in *Toward 2000* — will have greater currency across the campus; those objectives will be embedded in both curriculum and the extracurricular educational setting, and we will have made significant progress in achieving them. As a consequence of our increasingly learner-centred approach to education, our students will be better prepared for life-long learning. Experiential learning will have been facilitated more widely and more imaginatively across campus. Our students will be more self-reliant, and more capable of working collaboratively. Taking a smaller number of courses overall, they will have more time to reflect and to engage with ideas. Their thinking will be more critical and more creative. They will possess more highly developed skills. Our graduates and their employers will tell us that the University of Guelph has addressed successfully their most pressing needs. Students who leave Guelph to pursue graduate studies elsewhere will do so with increasing distinction. We will take pleasure in knowing that we have done our utmost to empower our graduates for responsible citizenship and personal fulfilment.

5. Collaboration within the University, with our neighbours, and across Canada and the world will have increased greatly, introducing efficiencies and a new sense of excitement. There will be more international students at Guelph, and many more of our Canadian students will have had an opportunity to study abroad. Our curriculum and our research activities will be more distinctly international. Open Learning will have brought substantial new revenue into a number of departments, and provided an important service to a significantly expanded and diverse body of students. Students will move freely between the University and the workplace and other sites. In all of these ways, we will feel still more vitally connected to the world outside the physical boundaries of the University.

6. Our partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) will continue to be vitally important to both the nature and the extent of research at the University. Faculty and students from a broader range of disciplines will be involved in this partnership and collaborative studies will be more frequent. A spectrum of new partnerships will be developed enabling the University to serve more effectively the needs of society in areas as diverse as international development, health and human services, public policy and environmental protection. Fields of study associated with our historical commitment to agriculture and veterinary medicine will

continue to form a prominent part of the Guelph mosaic.

7. The University's reputation for research will have grown appreciably. Quality and impact will be the essential criteria as we evaluate research and determine appropriate levels of institutional support. Funding will continue to be a problem, but new sources of research funding will have been identified, after major effort. More of our work will be collaborative or interdisciplinary, and new areas of research strength will have emerged across the University; some of these new research strengths will surprise us, and some will have been carefully fostered. Most of our existing areas of strength will have become stronger still. A few faculty members may have left research for other forms of scholarship, including innovative pedagogy; others will have been enlisted by colleagues in collaborative research programs. The research careers of recently appointed faculty will be well launched. Graduate programs will have evolved, and a number of new programs will exist; more and better graduate students will be enrolled at the University, and imaginative new ways of funding them will be in place. The critical role that graduate students play in our learner-centred, research-intensive agenda will be properly understood.

8. The effects of capital campaigns, other fund-raising efforts, and an increasing level of support from the Heritage Fund will be palpable. There will be more flexibility in the budget — i.e., a lower proportion of fixed costs, related particularly to permanent positions. This flexibility will make it possible to respond to changing levels of funding, and to continue the reconfiguration of the University. Interdisciplinary bodies such as councils will be well-established, and interdisciplinary activity will be flourishing. A major rationalization of programs will have occurred, and many ideas for reconfiguration will already have been acted upon; the college structure may or may not have changed. There will be many retirements, and opportunities for hiring will attract great interest within the community and beyond it.

The normal source of grants to Ontario universities is the Ministry of Education and Training (MET). Guelph is in the unique position of also having a special contract with OMAFRA to support research in six targeted areas and specific educational programs. The income from the contract represents 19 percent of the total \$198M operating budget. In 1994/95 the proportion of the operating budget derived from provincial grants (MET and OMAFRA) and from tuition were 73 percent and 18 percent respectively. The remainder (9 percent) was derived from service fees, investment income, and miscellaneous department revenues. The high proportion of the operating budget that originates from provincial sources makes the University particularly sensitive to changes in political direction and the financial situation of governments.

Two other features of the operating budget are noteworthy. First, personnel costs represent the major part of the budget: total personnel costs made up 80 percent of the 1994/95 operating budget, and personnel in regular full-time positions accounted for 70 percent. Second, almost all of the non-personnel expenditures in the budget are identified with structurally committed operational costs; there are virtually no flexible or discretionary funds. Given this degree of inflexibility, the University is particularly vulnerable to changes in future funding.

There are some knowns and a great many unknowns about future funding. Changes in funding may arise from adjustments to the provincial funding formula and from the provincial disposition of cuts resulting from the federal government's creation of the Canada Social Transfer (a much reduced block grant). While the nature of these changes is unknown at present, it seems clear that we are facing substantial cuts; the extent to which such cuts will be offset by increased tuition fees is unknown.

We have known for some time that at the end of the Social Contract (April 1996) we would have to deal with a projected structural deficit of \$8.9M, which is being handled within the period of the Social Contract by unpaid leave and the University's pension holiday. The University's Special Early Retirement Program (SERP) has helped to make it possible for the University to meet this reduction. The cost of SERP itself is being borne by the pension fund, the operating budget, and funds released from vacated positions. Many of those positions must disappear in order to address the structural deficit. But it will also be essential to continue to fulfil the functions of some of the positions that become vacant. Provisions were made for about 30 percent of the funds released by SERP to be used for this purpose when the program was approved.

Vacancies will arise as a consequence of SERP until April 1996; additional vacancies will arise through normal retirements and attrition and as a consequence of our 1992 budgetary reduction plan (the so-called Five-

Year Plan). Many of these vacancies will arise in staff positions. The total number of faculty positions that will become vacant in 1994/95 and 1995/96 is projected at 142. The Provost, in conjunction with the Vice-President Academic's Council, has identified a number of faculty positions that must be refilled; others have been deleted, and many have been frozen. The net effect, after the filling of 50 positions (37 probationary and 13 contractually limited), is a reduction of 92 positions (70 frozen and 22 deleted) or a reduction in the faculty complement of nearly 15 percent. As a partial offset, the budget for non-permanent teaching personnel has been increased by nearly 20 percent. If there are no further changes in income, we can meet the structural deficit and free up additional funds. These additional funds have been estimated at \$7.9M, a portion of which would first appear in the 1998/99 budget. It must be clearly understood, however, that this figure does not take into account either the threat of reduced income or the increased expenditure arising from inflationary costs, adjustments to salaries, or the filling of any of the 70 frozen positions.

The flexibility in the operating budget that will be created by SERP presents opportunities as well as challenges that are fundamental to this planning process. The opportunities include investments to allow us to pursue new directions, to rationalize our structures, to "re-engineer" our services, thereby reducing our long-term operational costs, and to increase non-MET sources of income (e.g., through the development of Open Learning courses). Other opportunities relate to personnel costs (e.g., filling frozen or reallocated positions and adjusting salaries). The flexibility created by SERP may also prove critical in helping us to survive the impact of any further reductions in provincial grants. The challenges that must be met are considerable, and they arise primarily from the reduction in the number of faculty and staff that is necessary to create this flexibility.

As a direct consequence of the decline in the faculty complement, it will be necessary to reduce the number of our course offerings, and to accomplish some of our teaching more economically (making up for some of the lost teaching power with an increased use of sessionals and of learning technologies). A decline in staff numbers will have to be accommodated by increasing efficiency, and by identifying wherever possible non-MET sources of funding for research personnel. From the perspective of comparative advantage, Guelph's downsizing is not as dire as it may seem, in that our faculty-student ratios and staff-faculty ratios are more favourable than those of many other universities faced with the same financial challenges. Efforts to reduce overlap in our course offerings will make this reduction less problematic.

A significant portion of the margin of flexibility that SERP has provided should, in the view of the Strategic Planning Commission, be used to help

B. THE FINANCIAL CONTEXT



Strategic planning must take into account the current financial realities and the context for future funding. Guelph, like other universities in Ontario, is dependent on provincial grants and tuition to meet most of its operating costs, including the costs of instruction, non-sponsored research, academic and student support, administration, and physical plant operation.

us function in less labour-intensive ways. The wisdom of this approach may be questioned by some members of the community, who would argue that the margin beyond the post-Social Contract structural deficit should be devoted to replacing the people who created that margin in the first place, instead of figuring out how we might cope without them. In short, they suspect that we have downsized too far. This argument ignores several important considerations:

- We may need a major part or all of this flexibility to survive future cuts, and permanent appointments cannot easily be undone.
- We need a 'breathing space' in which to determine the best possible deployment of permanent positions throughout the University.
- We will always need such breathing space, if we wish to change. Again, permanent positions cannot easily be undone; if resources are tied up in one unit, they cannot be transferred to another. Prior to SERP, we had positioned ourselves for very little flexibility.
- Some less labour-intensive practices cost less (after initial costs) than the labour they replace and are more effective.

If future funding levels permit, and if we think our money is best spent in that way, we can (as already indicated) fill or reallocate vacated positions when the flexibility arising after the repayment of our SERP debt appears in the budget. But significant flexibility must remain, as a buffer against cuts and for purposes of future investment and re-configuration. Great caution must be exercised. The longer we can reasonably delay rehiring, the more access we will have to the venture funds — one-time or short-term expenditures — needed to position us for ongoing success in an uncertain financial future.

One possible scenario is that provincial cuts will be largely offset by increased tuition. Because of the so-called corridor system, we currently serve a significant number of students for whom we receive no MET support; at present tuition levels, which are roughly comparable to the cost of instruction by sessionals, it makes little financial sense to admit these students. For that reason, and to reduce pressures in the system that threaten the quality of education and research, we have been reducing our undergraduate enrolment in recent years. If we hold to our present enrolment targets, the prospect of managing with a reduced faculty complement will be less daunting. Substantial increases in tuition, however, or changes in the funding formula, could make it financially attractive to take in an increased number of students. The decision to do so would have to rest on a conviction that we could accommodate those additional students without compromising our mission in education and research. Substantial increases in tuition that do not suffice to offset dramatic cuts would be a particularly unhappy outcome, but a more compelling motivation for cash-starved universi-

ties to increase enrolment. Given that we need more efficient (and effective) educational practices whether or not we increase enrolment, and that this need would be still more acute if we were to admit more students to selected programs, we should move as quickly as possible to extend our repertoire of such practices.

Because our financial future is so uncertain, it is impossible to predict how far or how quickly we will be able to proceed in realizing our Strategic Vision. Many of the recommendations in the Strategic Plan call for significant expenditure. Some of this expenditure will be ongoing, and some will be of limited duration. Much is aimed at reducing costs over the long term, or at realizing non-MET sources of institutional support, and much is aimed at improving the quality of education and research. There is, however, an impressive degree of overlap between these two categories of intent: initiatives that we anticipate will save and/or earn money for the institution will also improve quality. Open Learning courses are a case in point, and they illustrate the other critical factor in this mix — i.e., the amount of time it will take a limited number of dedicated people to effect desired change. The fact remains that we must find as much time and money as we possibly can, as quickly as we can, in order to have more time and money — and more quality — in the future.

In order to reduce reliance on provincial funding, the Heritage Fund was created. Growth of the Heritage Fund occurs through the development of property that is owned by the University and through gifts from benefactors. The capital in the Heritage Fund is held in perpetuity. Investment income is managed in accordance with the Heritage Declaration of Trust by the Board of Trustees. Some of this income is used to protect the fund against inflation (an amount based on the consumer price index). Of the investment income remaining, as much as 90 percent can be made available to the University — subject, however, to approval by the Trustees and the Board of Governors. Over the past three years a total of \$1.25M of the \$2.3M available has been distributed; all of those funds have been allocated to the Capital Fund to repay special internal debts incurred through building and renovations on campus.

In our present and projected fiscal circumstances, the question of investing additional income from the Fund in initiatives described later in this report must be raised. After another decade, the Heritage Fund will have increased substantially, even if the available income earned during that period is not returned to the Fund; in the meantime, such income may prove a small, but still critical resource. In the longer term, income from the Fund will significantly enrich the University. It must be clearly understood, however, that income available from the Heritage Fund is unlikely ever to represent a major portion of the University's operating costs. (Capital 25 times greater than that held in the Heritage Fund at

present would be necessary to yield income equivalent to roughly one-quarter of our total operating budget.)

The University also maintains a Capital Fund, money for which arrives from three discrete sources:

- major projects funded by the Province;
- a Capital Campaign;
- the annual Maintenance & Renovations grant received from the Province.

Deferred maintenance items in excess of \$40M have already been identified, and these will have to be addressed as speedily as possible through occasional major project grants and the annual Maintenance & Renovations grant. In addition, some re-configuration and renewal of physical resources will be required to implement the strategic plan. Costly items could only be supported if funds were available from a major projects grant or from a capital campaign. Some less costly items could be fed into the internal process of adjudicating requests for support from the annual Maintenance & Renovations grant, which fluctuates between \$1M and \$1.5M.

C. THE EVOLUTION AND DISTINCTIVENESS OF THE UNIVERSITY OF GUELPH



The present distinctiveness of the University of Guelph resides in programs that are unique or unusual in this province — such as those in agriculture, veterinary medicine, hotel and food administration, international development, environmental sciences, Scottish studies, and landscape architecture — and in our particular strengths across a wide range of academic disciplines. It is found also in an orientation that is conspicuously practical, international, and humane.

The University has evolved dramatically since its inception in 1964. The Act to incorporate the University of Guelph, as amended in 1965, states that "The objects and purposes of the University are (a) the advancement of learning and dissemination of knowledge including, without limiting the generality of the foregoing, the advancement of learning and the dissemination of knowledge respecting agriculture; and (b) the intellectual, social, moral, and physical development of its members and the betterment of society." The three founding colleges — the Ontario Agricultural College, the Ontario Veterinary College, and Macdonald Institute — had a well-established tradition of excellence in research, teaching, and service to society. As a result of rapid growth in the late 1960s and the need for balance, the University restructured itself around the seven colleges that exist today.

As noted in *Toward 2000* (our 1985 planning document), the decision to re-configure was based on the belief that the University could achieve its aims "only if it accorded equal academic and administrative status to the seven broad areas of study: agriculture, arts, biological science, family and consumer studies, physical science, social science, and veterinary medicine." By 1984, in its submission to the Bovey Commission, the University of Guelph described itself as follows:

The University of Guelph has had, and will continue to pursue, as a primary objective, the maintenance and enhancement of quality in all of its programs and will strive for a climate in which each unit aspires to academic excellence. We are committed to, and dependent upon, the maintenance of distinguished and distinctive programs in the basic disciplines of the arts and sciences. These disciplines provide the base upon which our other academic endeavours are built

The results of this history and these decisions have been impressive. The University of Guelph now offers a wide range of excellent programs and generates world class research across all areas of study; in addition, it maintains a strong tradition of service to society and a commitment to integrating its teaching, research, and service functions.

The founding colleges have changed, and grown in quality, as fields of study have been redefined in response to societal need and as a consequence of interaction among the seven colleges. With a record of increasing excellence also in the core areas of arts, social science, and science, the University of Guelph has become one of Canada's finest universities. The calibre of the University is reflected by the stature, achievements, and commitment of its alumni. The quality of our undergraduate student body is now among the highest in Ontario and Canada; our graduate programs are ranked in the highest category by the Ontario Council on Graduate Studies; and our researchers continue to distinguish themselves in national and international competitions. The University of Guelph's determination to promote creativity and research excellence wherever its potential may arise has been critical to our success. Guelph is now a leading research institution with a broad range of achievement, as evidenced by the level of external funding for research, by more than a dozen externally funded research chairs, and by numerous honours, including Governor General's Awards for Literature, major exhibitions for its Fine Arts faculty, fellowships in the Royal Society, Orders of Canada, and recent Polanyi prizes in Physics and Chemistry. Guelph's faculty have also shown themselves to be among the country's most effective teachers, as demonstrated by our large number of 3M Teaching Fellows and other teaching awards.

The University's commitment to the education and well-being of the whole person is evidenced through its development of the Learning Objectives, approved by Senate in 1987. These objectives have served, and will continue to serve, as a challenge and guiding force for the development of all undergraduate programs on campus. Faculty and staff commitment to the development of students and the quality of student life is

evident too in the supportive environment for which this University is so well-known.

The evolution of the University from its founding colleges, with their emphasis on service to society, has resulted in a widespread recognition of the importance of collaboration with external bodies, and in the development of important applied research programs in such areas as agri-food, animal health and well-being, the environment, biotechnology, gerontology, and work-family relationships. The unique relation that the University has had with OMAFRA has been a significant factor in the development of several of these areas. Guelph is a leader among Canadian universities in the biological sciences, in which a large number of our faculty work with great distinction. The quality of faculty working in the physical sciences, arts, and social sciences is equally impressive. Besides strong, innovative research and teaching programs in its core areas, the University has developed a wide range of interdisciplinary research and teaching programs. Among its many fine graduate programs, the University includes a number of integrated professional degrees.

For all of these reasons, the University of Guelph has become a highly desirable home for both undergraduate and graduate students. By providing a safe, supportive environment and more residential accommodation than any mid-sized Canadian university, Guelph has attracted a high proportion of recent high school graduates. The beauty of the University of Guelph campus and of the surrounding countryside, the rich cultural opportunities of the University and its environs, and our extensive international connections are additional elements of the comparative advantage that Guelph enjoys. Our proximity to a number of other universities has been a source of strength, and will become increasingly important as Guelph and its sister institutions, including colleges, move to collaborate more extensively in the years ahead.

As the demographics of Canadian society and our student population change, as Canada and the world change and confront new challenges, and as global interaction intensifies, the University will need to adapt while holding fast to its essential values. Our dedication to free and open inquiry, to a global perspective, to an appreciation of diversity, to educating students for change, and to life-long learning will be critical in this regard. As the rate of change in our external environment continues to accelerate, the University must rise to meet the challenges that such change presents. In meeting them, we must rely on the best efforts of all members of the community — faculty, staff, students, alumni, and retirees — and on a spirit of mutual respect and increased collaboration, both within the university community and beyond. The current prestige of the University of Guelph, and, more importantly, the real quality on which that prestige is founded, CAN be preserved and enhanced in the years ahead. Our evolution and mature status as a university of wide-ranging programs and real distinction have positioned us well for the future.

II. THE STRATEGIC PLAN

A. THE MISSION STATEMENT

RECOMMENDATION # 1: The University of Guelph should adopt the following as its Mission Statement:

The University of Guelph is a research-intensive, learner-centred university. It offers a wide range of high quality undergraduate and graduate programs in the arts and humanities, social sciences, and natural sciences. Building on these core disciplines, it also has a strong commitment to excellence in its interdisciplinary programs, in a selected range of professional and applied programs, and in agriculture and veterinary medicine as areas of special responsibility.

The University of Guelph is dedicated to the discovery, sharing, and application of knowledge, in service to society. In seeking to uncover and respect the diversity and profound interconnectedness of life, the University is both practical and idealistic. Its core value is the pursuit of truth. Its aim is to make a real difference in Canadian society and in the world, to enlarge the scope and enhance the quality of human life, and to bring imagination, skill, and a sense of responsibility to bear on the task of caring for our natural environment. Both in its research and in its teaching programs, Guelph is committed to a global perspective.

The University is animated by a spirit of free and open inquiry, collaboration, and mutual respect. It attracts students, faculty, and staff of the highest quality and is committed to creating for all members of its community an environment that is hospitable, safe, supportive, equitable, pleasurable, and intellectually challenging.

The University of Guelph is determined to put the learner at the centre of all it does, recognizing that a great university is a community of scholars, that research and teaching are intimately linked, and that learning is a life-long commitment. The University eagerly promotes collaboration among undergraduates, graduate students, faculty, staff, and alumni, as well as with our neighbours, other educational institutions, government, business, and the international community.

Guelph is committed to the highest standards of innovative pedagogy, to the education and well-being of the whole person, to meeting the needs of all learners in a purposefully diverse community, to the pursuit of its learning objectives and measurable outcomes, to the fostering of creativity, to an ethos of active learning, and to the integration of skills and critical inquiry in a carefully designed curriculum. A central concern is the need to educate students for life and work in a rapidly changing world.

The University of Guelph invites public scrutiny of the fulfilment of its mission, especially by the people of Ontario, to whom it is accountable.

ACTION: Senate and Board of Governors

B. OUR PEOPLE



1. STUDENTS

RECOMMENDATION # 2: The University should evaluate both graduate and undergraduate enrolment targets annually to provide the optimum balance between them, consistent with available resources and the realities of the current funding formula.

ACTION: Provost and the Board of Graduate Studies

In the absence of significant change to the funding formula, undergraduate enrolment should decrease to approximately 10,000 FTEs, as currently planned. In Fall 1994 undergraduate enrolment stood at approximately 10,700 FTEs, and graduate enrolment at 1,620

FTEs. Holding to the 10,000 target for undergraduates would help us to accommodate the decline in faculty numbers; any increase would be subject to limits imposed by the physical plant and responsible pedagogy. Growth in graduate enrolment toward our previous target of 2,000 FTEs, or a one to five ratio of graduate to undergraduate students, seems to the Commission appropriate for a research-intensive university.

Continued increase in the number of graduate students will, however, represent a major challenge in the face of both declining faculty numbers and projected decreases in research funding. Although it can be anticipated that changes in the faculty complement will result in a more even distribution of graduate students among individual faculty, it is clear that additional faculty effort in teaching and advising graduate students will be necessary to support continued growth in graduate enrolments. Avenues the Board of Graduate Studies should pursue to

foster collaboration and/or reduce impact on faculty time include more co-supervision; greater cooperation with industry and government agencies; the melding of graduate programs from several units; increased local, national, and international collaboration; the enrolment of more part-time graduate students; and an increase of non-thesis Master's programs. Although the education of graduate students is labour-intensive, our graduate students also perform critical labour in research and undergraduate education. Any vision of a learner-centred, research-intensive university is dependent upon their participation in the learning community. To provide adequate funding for graduate students, we must: employ them more extensively as sessional lecturers and as tutors for distance courses; pursue the relevant collaborative options described above; apply still more widely and well for research grants, building the support of graduate students into grant applications; and reallocate internal resources to provide additional graduate teaching, research, and service assistantships.

RECOMMENDATION # 3: To ensure that the quality of entering undergraduates and graduate students remains high, to enhance accessibility, and to increase the representation of people of colour and aboriginal people in our student population, the University should (a) assign a high priority in a major fund-raising campaign to the strengthening and diversification of our scholarship and bursary programs, and (b) maintain and strengthen liaison, public relations, and recruitment activities.

ACTION: Associate Vice-President Academic and President

Especially in view of rising tuition costs, it will be necessary to offer more and better financial support at both the undergraduate and graduate levels if we are to attract the best students. The rising cost of post-secondary education is likely to limit access for an increasing proportion of students. In response to this challenge, the University of Guelph must explore ways to assist those students most in need — including new scholarships and bursaries and on-campus employment (perhaps linked to experiential learning). Serious consideration should be given to scholarships aimed at students in economic need, whose academic achievement is high but not quite at the level required by the most competitive scholarships. Profile forms can be used to identify promising students whose grades fall slightly below the cut-offs, for reasons that may include their socio-economic background, and to identify promising students from the Guelph area who cannot afford to pursue their studies elsewhere.

Increasing the cultural diversity of the student population is important with respect to developing cross-cultural sensitivity and a global perspective in all our students. An educational equity strategy addressing not only liaison and admissions, but also curriculum issues and matters of atmosphere and support on campus, must (as currently planned) be developed and implemented. All sectors of the University should critically assess their programs, services, facilities, and general climate to ensure that all students are supported, and feel sup-

ported, in their education and development.

It will also be necessary to get our message out, more resoundingly than ever. In most of our undergraduate programs, the academic quality of students admitted to Guelph is very high, as reflected in admission averages and the number of Ontario scholars. Our very effective liaison program, the support we offer to students especially in first-year, and the quality of our academic programs and faculty have contributed to this success. But we are entering a more competitive era and cannot allow ourselves to become complacent. With respect to graduate students as well, we must recruit aggressively.

RECOMMENDATION # 4: The University should continue to emphasize its residential character and to focus on recent high school graduates.

Our residential character, the quality of service that we provide to students, and the effectiveness of our first-year transition programs have contributed significantly to the appeal that Guelph has for recent high school graduates. We should continue to focus on these students. At the same time, the University should promote Open Learning as a means of serving part-time students and those wishing to access our programs from a distance. We should facilitate movement between workplace and university, and improve transition-to-the workplace programs for students in their third and fourth years.

2. FACULTY AND STAFF

A comprehensive human resources management plan is essential to the achievement of our strategic vision. The plan must include a well-articulated human resources management philosophy that helps to define the climate in which the community wishes to work. This philosophy should outline what employees can expect from the University, and what the University expects in return. The human resources management plan must also address issues related to professional development, assessment of performance, compensation, and terms of appointment.

RECOMMENDATION # 5: The University must develop by September 1996 a comprehensive human resources management philosophy. ACTION: Human Resources in collaboration with unit managers and employee groups.

We propose that the management philosophy include the following elements:

- Each member of the University community has an important role to play in fulfilling the mission of the University.
- We will pursue our mission in a climate of trust and respect for all members of the University community; differences of opinion are valued and must be aired openly and amicably.

- Staff, faculty, and students will be included in the decision-making processes of the University.
- Management will be practised in a professional manner throughout the University.
- Individual contributions are valued, as are contributions involving collaboration. Creativity and reasonable risk-taking in pursuit of educational, research, and service goals are encouraged.
- Wherever possible, employees are empowered to make decisions in their areas of responsibility.
- Management will be characterized by teamwork, open and honest communication, and a shared vision of the future of the University.
- The assignment of responsibilities should provide, on an ongoing basis, the best possible match between the unique skills, abilities, and needs of the individual and the needs of the institution.
- Cultural diversity is highly valued at the University of Guelph.
- University employees are expected to strive for excellence in their work, and excellence will be recognized wherever it is achieved.
- Continuous renewal and intellectual growth are required of everyone.

This list is not intended to be exhaustive. The elements are not novel and not new to Guelph; indeed their value lies primarily in the articulation of a comprehensive philosophy that will guide our actions and decisions. The element of the philosophy related to cultural diversity merits specific comment. The University is committed to increasing the cultural diversity of its faculty and staff; the richness of perspective that this brings will be important for many reasons, not the least of which is the provision of role models for students with culturally diverse backgrounds. We must also ensure that the campus environment is welcoming, hospitable, and free of discrimination for all employees (and students). The issue of role models for students underscores the importance of continuing our efforts to increase the number of women on the faculty, especially given the very high proportion of women students at the University of Guelph.

Provision should be made, in both policy and practice, for including one or more staff members as full members of the selection committees for academic administrators and non-academic administrators. This reflects the principle that members of all sectors of the University are equally valued. At the present time, procedures for the appointment of academic administrators call for representation on selection committees by academic administrators, regular faculty, and students. No provision is made to allow the university to benefit from the expertise of staff members in these searches (see Faculty Policy C.1.6, Section 3.04). Current policy related to search committees for senior non-academic positions (University Policy # 301) should be revisited, to make the inclusion of staff on these committees explicit.

Implementation of the human resources management philosophy will be the responsibility of the entire community. Accountability for implementing the philosophy must rest at departmental, managerial and individual faculty/staff levels. The President and Vice-Presidents must be responsible for embracing and promoting this philosophy on an ongoing basis and for facilitating its implementation. Human resources management plans that reflect both a well-defined human resources philosophy and decisions arising from strategic planning must be developed. These plans should motivate staff at all levels to fulfil their responsibilities in an effective and efficient manner. Some aspects of these plans are discussed below; others will need to be developed by Human Resources in consultation with the appropriate units.

RECOMMENDATION # 6: Professional development and renewal to ensure the acquisition of those skills most crucial to the implementation of the Strategic Plan must be a priority for all members of the University community, but particularly supervisors — including deans, directors, department chairs, faculty and librarians in supervisory positions, and non-academic managers — with accountability through the performance review process. ACTION: Provost and Human Resources

The development of these skills will require that they be defined and that funds currently used to offer programs related to personal and professional development be appropriately focused. Wherever possible, employee-initiated professional development programs should be aligned with the Strategic Plan.

The adoption of a more learner-centred approach to education will require training in the use of learning technologies and new thinking about pedagogy. Deans, chairs, and managers of the relevant support units, in collaboration with Teaching Support Services (TSS), will have a leading role to play in promoting this approach and in creating opportunities for faculty and staff to explore its implications and develop skills. Improved training of Graduate Teaching Assistants (GTAs), as well as regular evaluation and constructive feedback on GTA performance, will be essential to our success. In cooperation with departments, TSS should develop improved centralized training, including training in disciplinary clusters; it should supplement workshops with video, print-based, and computer-based instruction. The time required by graduate students to participate in these training programs must be funded by the University.

New managers and academic administrators are often appointed with limited management experience. Skills related to budget and personnel management are particularly important. The ongoing turnover of administrators, particularly department chairs, means that the periodic offering of a course (e.g., every three to four years) would be of limited value. The development of self-study materials, course modules and sessions developed and offered in collaboration with neighbouring universities, and

courses such as SUAC (Senior University Administrators Course) may be appropriate alternatives.

RECOMMENDATION # 7: The University should introduce for all its managers and academic administrators a performance review program that measures progress toward specific, agreed-upon goals.

ACTION: Provost, Deans, Vice-President Finance and Administration, Human Resources

RECOMMENDATION # 8: Performance review programs for staff should recognize contributions in support of specific, agreed-upon goals and should include appropriate measures of satisfaction on the part of individuals and units served. ACTION: Chairs and Unit managers in collaboration with Human Resources

RECOMMENDATION # 9: The current effort of the Joint Faculty Policies Committee (JFPC) to produce a common set of University-wide standards for tenure, promotion, and selective increment should be made a high priority matter, with the expectation that a common set of guidelines can be adopted by January 1, 1996.

The articulation of a set of minimal common standards on which departments can elaborate should lead to greater uniformity in the evaluation and recognition of faculty effort. Further, in order to encourage activity directed toward the achievement of strategic goals, the University-wide common standards should specifically include reference to the recognition of faculty performance related to the University's Strategic Directions and to the recognition of interdisciplinary work. They should also emphasize the importance of the critical assessment of quality and impact in the evaluation process.

RECOMMENDATION # 10: The University should make every effort to ensure that there is provision for a significant "merit" (or "pay for performance") component in the salary of all its employees. ACTION: Vice-President Finance and Administration.

The current compensation structures for faculty and staff mean that many employees who are performing in a superior manner receive minimal annual increase in salaries related to merit. The principle of merit should be considered in discussions with all employee groups. The SPC was particularly interested in the concept of a one-time bonus, as part of a strategy to address this issue. The SPC is also aware that training of managers and academic administrators is essential if a merit system is to be implemented effectively.

RECOMMENDATION # 11: The University will hire new faculty with potential to excel in both teaching and research, and will nurture their early careers so that they have the opportunity to reach their potential.

ACTION: Provost, Vice-President Research, Deans, and Chairs

Implicit here are two basic principles: that we must not predetermine the areas in which research eminence will reside, and that the desired faculty norm is that of a distinguished teacher who is also a distinguished researcher. While faculty may over time develop more pronounced strength in one of these areas than in the other — and while the University must then profit from that greater strength by assigning greater emphasis to it — we will begin by hiring faculty with strong potential in each area, and by providing support for development in each area. Very occasional exceptions may be made, where a candidate's ability in either teaching or research is outstanding and the need lies in that direction.

RECOMMENDATION # 12: In cases where faculty are not significantly engaged in scholarship related to teaching or research during the research, study and professional development semester, they should take on teaching (or service) responsibilities during that semester OR move to nine- or 10-month appointments. ACTION: President, Provost, and Joint Faculty Policies Committee

The overall productivity of faculty at the University in teaching, research, and administration/service has increased steadily over the last decade. Indeed, what might be termed over-performance — relative to customary norms — is becoming increasingly common. Nevertheless, from time to time some faculty may be judged to be under-performing, particularly in terms of their activity during the research, study and professional development semester. In cases where the faculty member's overall performance is deemed unsatisfactory with respect to both teaching and research, termination of employment is a possible consequence. However, in those cases where only the research component of faculty activity is deemed unsatisfactory, there are three options. The first step is for the chair to consult with the faculty member to determine whether he or she wishes to make a more effective contribution in research, and if so, what assistance might be provided to the faculty member in that regard. The second option involves negotiations between the chair and the faculty member that may result in the faculty member taking on additional teaching or service responsibilities. The third option is a temporary or permanent shift to a nine- or 10-month appointment. This option is consistent with Faculty Policies and would be most appealing to a faculty member who wants time away from the University to pursue other professional or personal interests.

RECOMMENDATION # 13: The custom in many departments of assigning identical or very similar teaching "loads" to all faculty must give way to more carefully differentiated teaching assignments, which reflect the quantity and quality of work carried out in the areas of research and service, as well as teaching and advising responsibilities related to graduate students. ACTION: Chairs of departments and Deans

As indicated in I.4 of the Special Plan — and notwithstanding Article 19, which supports the right of faculty members to elect their own career paths — department chairs have a responsibility to assign variable teaching loads in order to achieve equitable workloads. The concept of variable teaching loads should not be linked too closely to the concept of paths. Election of the "Teaching Path" normally involves a heavy teaching load, but it is not the pre-condition of assigned teaching in excess of a departmental average; and it does not necessarily entail an unusually heavy instructional load — since the Teaching Path is intended to foster excellence in scholarship related to teaching. This form of scholarship will be increasingly important in the learner-centred university. Recommendation # 13 is consistent with the Human Resources Management Philosophy proposed earlier, which states that "the assignment of responsibilities should provide, on an ongoing basis, the best possible match between the unique skills, abilities, and needs of the individual and the needs of the institution." It is also consistent with the need to achieve equity across the institution, with the Commission's interpretation of research-intensiveness, and with the need to further the learner-centred agenda. All faculty are expected to engage in teaching to some degree.

3. ALUMNI

RECOMMENDATION # 14: The President of the University of Guelph Alumni Association (UGAA), the Provost, and the Vice-President University Affairs and Development should develop opportunities for alumni to collaborate more extensively and effectively in the work of the University. The President of UGAA should present an annual report to Senate on the nature and extent of involvement by alumni in activities related to our academic mission.

The alumni of the University of Guelph and its founding colleges are an important part of our academic community. Our alumni, who are distributed around the globe and through all walks of life, provide a vital link to the world outside the University. Often, they are eager to share their wisdom and experience, and it would be foolish not to take advantage of their willingness to do so. It is clear to the Commission that alumni have a key role to play in implementing the Strategic Plan. That role is reflected in the mission of the University of Guelph Alumni Association: *to sustain and strengthen the University of Guelph.*

Alumni could strengthen the University through enhanced involvement in a range of activities such as the following:

- networking with students to provide them with a better understanding of the workplace and job opportunities;
- bringing (as resource people) real world experience to discussions in courses, in curriculum design, and in a range of experiential learning activities;
- networking with administrators to provide information on industry/university and government/ university

interfaces and potential new opportunities,

- liaising with prospective students;
- fostering international connections and promoting the University worldwide;
- collaborating in the design of Open Learning programs and participating in these programs; and
- fund raising.

Alumni have historically been generous with both their time and their money. Many of them would like to be even more involved and even more helpful in strengthening the University. They are available, they are sympathetic, they have the expertise and the will — and they represent a much under-utilized resource, which we neglect at our peril. If any of our alumni feel that they are not recognized as members of our community, that their potential input into programs and decision making is not welcomed, and that only financial assistance from them is of interest to the University, that perception must be changed. It is the University's fault if that perception exists, a fault that must be corrected by deliberate action. University administration, faculty, staff, and students share responsibility for increasing the involvement of alumni in the academic community. The SPC believes very strongly that increased involvement of alumni will be essential if the University is to realize its very ambitious vision. A database that includes a description of the interests of individual alumni would facilitate the use of their diverse strengths. As ongoing students of the University, alumni should also be well served by our choice of Open Learning as a strategic direction; but in fact all five of our strategic directions relate critically to contributions alumni are well positioned to make to the future of the University.

4. RETIREES

The University must rely increasingly on the expertise and generosity of retirees, as continuing members of the University community. Retirees, including the significant number of SERP retirees, will be a vital resource. We cannot hope to maintain strength, or realize our vision, without their help.

5. GOVERNANCE

RECOMMENDATION # 15: The Senate Bylaws and Membership Committee should explore a number of options for substantially reducing both the size of Senate and the size and number of Senate committees and present a proposal to Senate by September 1996.

This recommendation addresses the streamlining of Senate, to which a high priority must be given. In addition to supporting a substantial reduction in the number of Senators (which far exceeds the norm in Canadian universities), the Commission favours a streamlining of Senate's committee structure. The Commission's concern, however, goes beyond Senate to the whole issue of governance, and in particular the need to ensure that faculty time spent in commit-

tee work (like time spent in teaching or research) is well invested.

A collegial structure has been an essential element of governance at the University since it was created, and it is essential that the most positive features of this structure (and its processes) be retained. However, the workload associated with this will in future be borne by a smaller number of faculty and staff. This problem will be accentuated as we enter a period in which it is anticipated that faculty will be spending more time on curriculum review and development, and in which the University as a whole will be undergoing significant change. While we recognize that time spent in committees and in consultation is an essential element of a collegial structure, and is necessary to achieve a climate of trust and open communication — as well as good decisions — it is also true that in a climate of greater trust, openness, and accountability, it should be possible to spend less time in committees.

The automatic response to a problem should NOT be to "throw a committee at it." In assessing existing and proposed committees, we should also look very hard at the need for representation; while the participation of various constituencies will in some cases be vital, the automatic application of the representation principle can lead to swollen, ineffective committees and an excessive workload for the community as a whole. Part of the answer is making sure that people have ready access to information, and to issues under consideration, so that they can contribute ideas and flag matters of concern. Administrators should be allowed to administer, always within the context of full accountability. Committee recommendations should identify responsibility for implementation and should be rejected, delayed, modified, or implemented — and the community made aware of what has happened to them and why. Committee chairs should be responsible for follow-up. It is important for people who have worked hard on committees to know the consequences of their labour, and for the institution as a whole to gain a clearer sense of what is and what is not achievable.

C. STRATEGIC DIRECTIONS



Formulation of strategic directions has followed from the examination of the external environment, the review of our institutional values, the assessment of our strengths and weaknesses, and the formulation of our mission statement. For the purpose of this report, we define strategic directions as those key issues to which we must pay greater attention if we are to realize our mission. Further, we distinguish between incremental operational issues — the continuation and improvement of most of what we currently do — and strategic directions. Action on appropriate strategic directions, together with attention to change in our "operational" activities, will ensure that we can carry out our mission effectively.

The strategic directions that are proposed have several common characteristics. They have potential for all academic areas of the institution, not just a subset of departments or specializations. They are of a continuing,

long-term nature rather than involving a single act or decision. They represent our vision of what must be done to cope with the challenges of the near future, in the context not just of what we do but of how we do it. The two primary strategic directions reflect the core of the University's mission; the three additional strategic directions will enhance our ability to fulfil that mission. The primary strategic directions, learner-centredness and research-intensiveness, are deeply inter-related — as indeed are all five of the strategic directions.

RECOMMENDATION # 16: The University of Guelph should adopt learner-centredness and research-intensiveness as its primary strategic directions, and collaboration, internationalism, and open learning as its secondary strategic directions.

ACTION: Senate

1. THE LEARNER-CENTRED UNIVERSITY

Learner-centredness is an approach to education that aims at developing in each student, as early as possible, a sense of responsibility for his or her own learning. It recognizes that intellectual growth occurs only through vigorous, imaginative, and purposeful movement of the mind, and seeks to inspire and assist such movement; acknowledging (and acting to help meet) the need for rich and timely 'content,' it nevertheless regards as pernicious the passive model of the mind as receptacle. The University has an opportunity to enhance its reputation for excellence in education through the implementation of a strategy that places increased emphasis on self-reliant learning, the research-teaching link, skill development, and experiential learning. In these four ways (the critical elements of a learner-centred agenda) we can help to prepare our students for life-long learning, professional and academic careers, and responsible citizenship in society. The signature approach to work at the University of Guelph is the purposeful integration of research and teaching, under the term *learning or scholarship*.

The University of Guelph is committed to undergraduate and graduate educational experiences that are designed, delivered, and evaluated to maximize student learning. These experiences are intimately tied to the creative research done by faculty, since the processes and results of research, when shared with students, enhance the learning of all. We seek to involve all students in academic experiences in which they can learn the skills of disciplinary and inter-disciplinary inquiry that are essential to ongoing self-reliance. At an early stage, students should begin to learn that research means people reading, thinking, testing, and challenging — as old facts, theories, and interpretations are explored and evaluated and give way to the discovery or development of new ones. The extent of the student's own engagement in research should increase as experience is gained and methodological expertise is developed.

Self-reliant learning can be fostered by mentoring, where the instructor is seen as a resource person guiding the student's own contact with the material. Peer-group learning and the use of senior undergraduate and/or graduate students

as supplemental instructors can complement such a teaching strategy. Students should develop an appreciation and understanding of research in their chosen disciplines, beginning in their early semesters, and senior undergraduate research projects should become more common components of undergraduate specializations. Appropriate ways of involving undergraduate students in faculty and graduate research and scholarship endeavours, without placing additional burdens on research funding, must also be explored.

The development of self-reliance and the ability to work with others are critically important goals. Both are served when we require students to engage in well-conceived and managed research and group projects; moreover, the critical thinking and problem-solving skills required for success in the world of work depend upon the development of these capacities. Skill development (at the expense of proliferating factual content) should be emphasized more strongly: it gives students what they will need for the future. Essential skills include writing and oral communication skills, numerical and computing skills, critical thinking and problem-solving skills, leadership, and group skills. Experiential learning — or learning by doing — also fosters self-reliance and cooperation with others. It requires the further development of a curriculum that fosters active, hands-on learning; it involves laboratory experiences, the use of interactive software, writing, and creative work. In part because experiential learning also means co-op work terms, internship programs, volunteer work, practica, and field work, this initiative is very important to the transition from university to the workplace.

Faculty, staff, and student time must be used as effectively and imaginatively as possible in the learner-centred university. If, as the research insists, lectures are less effective as multi-purpose learning sites than we have commonly supposed, fewer hours should be spent in them — and more hours in other sites. Lectures can provide potent educational experiences, challenging and exciting our students. But they should be combined with other teaching strategies, to provide an environment in which students will develop academic and personal competencies that empower them to assume increasing responsibility for their own learning. We must structure the curriculum to allow our students time for reflection, creativity, and the pursuit of excellence in all their tasks. And we must all feel free to experiment.

Self-reliant learning involves setting learning goals and monitoring one's own growth and development. To assist this process, students should be encouraged to develop a "portfolio" of learning accomplishments. Academic advising, in a learner-centred environment, can focus on providing guidance and support to students who seek to meet specific learning objectives. The portfolio might provide an important point of departure for appropriate advising. Senior year "capstone courses" can provide an opportunity to reflect upon one's learning, to integrate accomplishments from a variety of areas, and to prepare for a future life of work. Taken together, implementation of the portfolio idea, more effective academic advising, and increased availability of capstone courses can help students to integrate and keep track of their own goals and achievements. To support the self-reliant

learner, it will also be necessary to think hard about the way we provide timely and useful feedback to students. The use of evaluation without penalty, as with interactive software, should be increased. Frequent feedback is critical to student learning, but it does not necessarily require that a grade be assigned. The function and form of testing and examinations will also need to be explored further by faculty and students, to take account of changing goals and expectations.

Learner-centred education represents a further development of the spirit already captured in our 10 Learning Objectives: Literacy, Numeracy, Sense of Historical Development, Global Understanding, Moral Maturity, Aesthetic Maturity, Understanding of Forms of Inquiry, Depth and Breadth of Understanding, Independence of Thought, and Love of Learning. We recognize too that a learner-centred approach is characteristic of graduate studies and is common in many of our courses already. Nevertheless, the adoption of a more learner-centred approach to education will require a significant change in the manner in which we operate. It will take time, money, good will, and dedication to effect that change. Both faculty and students will need to re-evaluate their approaches to education, and significant resources — including faculty time — will have to be freed up. The challenge of providing such resources in the present climate of fiscal constraint and reduction of the faculty complement is indeed formidable. But the Commission believes that the challenge can be met, and that the future well-being of our students requires no less than a dedicated commitment to bring about such change.

That our responsibility to adopt a more learner-centred approach to education should be so compelling now, when more large lectures seem the obvious response to worsened faculty/student ratios, and nearly all faculty are hard-pressed, is a cruel irony. We can, however, reduce the amount of time that faculty spend in preparing and delivering large lectures and use that time more effectively. Other strategies aimed at liberating faculty time for learner-centred education (and the research upon which it depends) are proposed throughout the Strategic Plan; they include reduced course offerings, paring away unnecessary activity, and an increased use of sessionals, graduate students, and staff in teaching or supporting learning. Computer-assisted instruction will not save faculty time or money in the short term, but for some kinds of learning it is demonstrably more effective, and there will be substantial savings down the line. More independent and collaborative research by students requires more supervision and will never save faculty time; it is obviously not a strategy for off-loading, or for the abandonment of our students to their own devices. Ongoing change to curricula, the preparation of new learning materials, and the facilitation of small group work will all require a major expenditure of faculty time. We cannot do everything at once. We can only begin, convinced by necessity — and hope that our collective ingenuity (and attempts to convince government of the folly of disinvestment in university education) will prevail.

RECOMMENDATION # 17: A mandatory first-year "inquiry course" should be developed, around subject matter that integrates thinking

in the humanities, social sciences, and science; its central aim should be to help students become more self-reliant learners and to promote an understanding of research and the process of open inquiry.

ACTION: Associate Vice-President Academic

This course will be essential in helping our students to function within a learner-centred environment. To develop a rigorous and exciting course, a task force will be required; it must include a group of innovative and highly respected faculty, staff members, and students, working closely with program committees, the Office of First-Year Studies, and the Board of Undergraduate Studies. (The work involved in developing, implementing, and evaluating such a course campus-wide will assist us too in managing the community's transition to a more learner-centred approach.) By positioning the inquiry course in the first year of studies, we set the tone for our learner-centred environment. The inquiry course will promote an open and critical approach to learning, and so establish the vital links between critical thinking, research, and learning. Students should learn how to use the relevant resources (e.g., library, computer software) that will be required of them throughout their studies at university and beyond. Other courses can then build on the learning skills acquired in this course. The course will draw on resources from across campus — faculty and support services alike — and could be offered in a modular form to accommodate special needs. It must afford opportunities for small group interaction and for writing.

RECOMMENDATION # 18: Certain courses within each program should be "designated writing courses;" such courses should have a significant writing requirement and provide students with careful feedback on writing skills within the context of their various disciplines. The successful completion of a specified number of designated writing courses should be a university requirement for graduation. ACTION: Associate Vice-President Academic and program committees, to explore the development of this initiative in 1996

Of all of the University's Learning Objectives, Literacy may require the most immediate and systemic attention. The development of writing and speaking skills is difficult in large classes. Yet the demand in the world of work for more highly literate graduates is growing. "Designated writing courses" would intentionally stress writing within all disciplines and provide specific means to monitor and improve communication skills.

The original intent of the Learning Objectives was that these should be the generic outcomes of the baccalaureate experience. Few if any single courses can address all of the Learning Objectives at once. Our limited success in the implementation of the Learning Objectives is a function of inadequate attention to the design of the curriculum as a whole and to the trajectories of students moving through the curriculum. The SPC reaffirms the University's commitment to the Learning Objectives and its responsibility to ensure that the aggregate of courses each student takes (together with

the learning that takes place outside of the course structure) will effectively address all of the Learning Objectives. The recommendation relating to designated writing courses is one important dimension of this curriculum-wide approach to implementation. It most certainly does not imply that writing should be required only in designated writing courses; rather it attempts to ensure that in these courses at least a particularly concerted effort will be made, and that all students will be helped to write well. Designated writing courses will be resource-intensive; although additional resources (perhaps involving the Writing Centre) will be required for support in some courses, and a workable class size will have to be protected, many existing courses would simply require designation. The first-year inquiry course should be made a designated writing course.

RECOMMENDATION # 19: With an increase in the use of computer-assisted instruction, it will be necessary for students to have increased access to computers. In the short term, we should increase computer workstations and make it easier for students to acquire their own computers; in the long term, we should require students to have their own computers.

ACTION: Provost

The University must be sensitive to the cost to students of acquiring their own computers, and explore ways of assisting them — e.g., bulk purchase, interest-free or University-backed loans, loans/rentals, and bursaries. Time lines should be established by the task force referred to in Recommendation # 32.

RECOMMENDATION # 20: The University should offer a range of experiential education options. To this end, the University should establish by January 1996 an Experiential Education Advisory Group, involving faculty, staff, students, and employers — including alumni wherever possible — to consider issues associated with the work-related portion of an experiential learning continuum and to advise the University on the placement of students in a variety of such experiential learning opportunities.

ACTION: President, Associate Vice-President, Student Affairs, and the Board of Undergraduate Studies subcommittee on Work/Study Programs.

Among the avenues to be explored are single or two-term work/study opportunities, the enhancement of co-op opportunities, and on-campus employment. The increased use of students in peer paraprofessional, volunteer, and part-time positions within the University should be pursued as a means of fostering involvement in the University and of providing cost-effective experiential education opportunities. The participation of alumni and other friends of the University in the Experiential Education Advisory Group will be critical, particularly in identifying and helping us to pursue off-campus opportunities.

The SPC interprets experiential learning broadly, to include all of what might be termed “learning by doing.” Informa-

tion gleaned from our environmental scans clearly points us in this direction. This recommendation addresses only the work-related portion of the experiential learning continuum, which may be less expensive to develop. Not all departments and programs, however, will be able to support this kind of experiential learning. Experiential learning in its broadest sense should be an integral part of each degree program.

RECOMMENDATION # 21: All undergraduate and all graduate courses should be evaluated by students. A common set of questions should be introduced university-wide, to form a part of each department's questionnaires.

ACTION: Provost, Joint Faculty Policies Committee

The SPC recognizes the challenge presented for small graduate classes, but maintains that solutions must be found. In a learner-centred university, we must pay close attention to what is and what is not working for all student learners. This is a critical accountability issue, as well. A common set of questions for undergraduates will help the University to gauge its success in implementing the learner-centred approach and to identify areas of strength and weakness, on a comparative basis. A different set of common questions could be used for graduate questionnaires.

RECOMMENDATION # 22: A Learning Enhancement Fund should be established at a minimum of 0.5 percent of the University's MET operating budget and increased as rapidly as circumstances permit.

ACTION: President and Provost

The learner-centred university cannot become a reality without an investment of substantial resources. Enhancing learning, especially in ways that employ the new learning technologies, takes a major investment of faculty (and often staff) time. If that time cannot be freed up in any other way, it will have to be bought out. The use of faculty expertise to prepare the new style of learning materials will require a paced attack. It will be necessary to set a schedule for doing this, perhaps beginning with selected first- and second-year courses, and to take time enough to do an excellent job. This transition will therefore take a number of years. Materials can, of course, (and must) be developed in collaboration with other institutions, purchased, or acquired in other ways — but that too takes time and money. The University's commitment to being learner-centred will necessitate a continuing concern for staff and faculty development. Instructors will require assistance from Teaching Support Services (TSS) personnel who are provided with ongoing training in the latest strategies and technologies. Calls upon this fund will be many and varied, and will include the development of distance courses. It will be important to allocate these resources wisely, and always with a view to maximizing student learning. The Learning Enhancement Fund should assign a high priority to initiatives that support not only learner-centredness, but indeed all of the other strategic directions as these relate to learning. The Vice-President Academic's Council (VPAC) should oversee the use of the Fund, monitor the effec-

tiveness of its allocations, and inform both the community and the Board of Governors of awards made and results achieved.

2. THE RESEARCH-INTENSIVE UNIVERSITY

The University of Guelph seeks to maintain and enhance its research-intensiveness and to increase the quality and impact of its research, such that this university will be among the very best universities internationally in a number of research areas and a leader nationally in a larger number. The term “research-intensive” distinguishes the University of Guelph from many other universities. It suggests our unusually high level of research (and other creative or scholarly) activity, and is meant also to underscore the integration of inquiry into all aspects of academic life. It is proposed as a strategic direction because it will be increasingly difficult to find the time and money needed to support research in the future — and because the reaffirmation of our commitment to that goal is regarded by the Commission as essential.

The University recommit itself to providing the necessary elements for innovative and creative research, namely, time to do research, library access in support of research, high quality research space, and other necessary infrastructure. We also recommit ourselves to the fostering of dynamic graduate programs, recognizing that our graduate students play a critical role now in the University's research effort, and that they must be empowered to participate in and lead the future research efforts of Canada and the world. Our commitment to research-intensiveness should be regarded also as a function of our commitment to graduate education.

Research is an act of enlightenment for society, and an investment in ideas and people. It may be considered as having three dimensions. One relates to discovery: creative and scholarly inquiry that reflects our need as human beings to confront the unknown and to seek understanding for its own sake. A second dimension relates to integration: giving meaning to isolated facts, making connections across disciplines, and placing specialized knowledge in larger contexts. The third dimension is the application of knowledge to solve problems of consequence to society. Each of the three dimensions of research may be pursued by investigators working alone or in collaboration with others. The University of Guelph has great strengths in all three dimensions of research. The role of each of these dimensions, and the synergy between them, must be protected.

Traditional measures of research-intensiveness tell us very little about the degree to which research has been integrated into the educational process. Efforts made to engage students with research, as well as scholarly activity that takes such integration as its immediate goal, are critical to research-intensiveness as the SPC conceives it. Both address the ideal of a learner-centred, research-intensive university — the benefits and special character of which cannot be found in institutions focusing more single-mindedly on either teaching or research.

External research funding (involving peer review) is often used as a measure of research-intensiveness, and by this important measure the University of

Guelph currently fares very well. One obvious limitation of the funding measure is that not all research is dependent upon external funding. An alternative approach is to focus on research output (as opposed to financial input) and, more importantly, on the impact and quality of research. The danger of output measures is an emphasis upon quantity: paper-counting is to be avoided, particularly in an era of constrained resources. Even citation-counting, which attempts to measure impact, can be unreliable; the impact of the most important research may be delayed, and inferior work (perhaps because of the nature of the field) may attract more immediate attention. Thus, quality is a necessary precondition of any research whose impact we would judge favourably. Notwithstanding the difficulty of assessing impact and quality, it is proposed that the University of Guelph define its research-intensiveness (and evaluate research) on the basis of both funding AND impact/quality.

In the last decade, external funding for research and the impact/quality of our research, together with the number and quality of the graduate programs we offer and the graduate students we train, have increased dramatically at the University of Guelph. This is a major achievement. Although it will be increasingly difficult to sustain this level of research-intensiveness in the face of declining faculty and staff numbers, erosion of government support for research, and increasingly fierce competition for funding from external granting agencies, the University is determined to do so. Faculty without external research funding must not be stranded; those who have the ability and desire to make a research contribution must be assisted by colleagues, chairs, deans, and the Research Board to discover new research directions and to participate in collaborative projects.

Despite resource constraints, opportunities to pursue new directions in research arise continuously. The University, in addition to upholding the individual researcher's choice of direction, must identify and develop opportunities of strategic importance. Partnerships with organizations in the public and private sectors will become increasingly important in the context of a highly competitive global economy. Such partnerships will allow the graduate students involved to extend their preparation for careers outside the University. They will also provide access to expertise and facilities not available on campus — a significant advantage, as faculty numbers shrink and other resources become more constrained. The fundamental requirements for high academic quality and for sharing the results of research will, of course, need to be respected in these partnerships.

Increasingly, the priorities of funding agencies, and the problems that researchers are being asked to address, call for collaboration. Catalyzing such transient, problem-based interaction is one of the keys to great innovation — and should be an important part of the mandate of the Office of Research and the Research Board. In addition, the development of skills necessary for successful collaboration should be incorporated more fully into the education of researchers, particularly at the Ph.D. level.

A special collaborative relationship that has evolved in response to the changing needs of rural Ontario is the partnership between the University and OMAFRA.

The level of support that this Ministry provides to the University places Guelph in a unique position among Canadian universities and contributes in a major way to the current level of research-intensiveness. This relationship is a source of pride and mutual benefit to both the University and the Ministry and must continue to be fostered.

Infrastructure that will allow faculty and students to achieve their potential as researchers is critical. Support for infrastructure has not kept pace with funding for research in the past decade, and may decline still further in the future. Deficiencies associated with current infrastructure include a progressive deterioration of facilities, an inability to replace basic equipment needed for routine tasks, or to purchase the more sophisticated equipment needed for advanced research, and library resources. Reversing current trends in research infrastructure will require a reallocation of funds within the University's operating budget and a much more vigorous pursuit of alternative sources of funding.

In the face of constrained resources, the University cannot hope to achieve similar levels of accomplishment in all of its research endeavours. Our research and graduate education must continue to support our areas of special responsibility. Beyond this, the University has two choices: to limit support to specific subject areas; or to support excellence wherever it arises. The latter choice was clearly articulated in *Toward 2000* and has contributed to the eclectic mix in graduate programs and research that currently exists at the University. Diversity in research and graduate education is crucial to the development of skills in inquiry among undergraduates, and allows the University to respond to changing societal needs. Implicit in such a focus on excellence is a recognition that new areas of strength and leadership in research will evolve as others diminish in significance. Research of high quality must be recognized in whatever area and at whatever stage of a faculty member's career it arises. Scarce infrastructural resources must be directed to support these areas of excellence. Increasing rigour in the assessment of research, the need to focus scarce infrastructural support on the most effective research, and shifts in the nature of research that is supported externally will mean difficult choices. Strategies to preserve a compassionate, creative research environment will be essential as these choices are made.

RECOMMENDATION # 23: A Research Enhancement Fund should be established under the joint direction of the Provost and Vice-President Research, to support new faculty, research infrastructure, and promising initiatives. The fund should be established at a minimum of 0.5 percent of the University's MET operating budget and increased as rapidly as circumstances permit. ACTION: President and Provost

Research-intensiveness cannot be maintained or enhanced without an investment of substantial resources. The Provost and Vice-President Research should monitor the effectiveness of allocations from the fund, informing both the community and the Board of Governors of awards made and results achieved.

3. COLLABORATION

Collaboration is not typically regarded as an end in itself. It is proposed by the Commission as a strategic direction because to pursue that direction vigorously will require a concerted effort and a change of mind-set throughout the University. It is an essential coping strategy, and a means of achieving more than can be accomplished alone. In educational terms, however, it may also be an end in itself. The competitive orientation or focus on individual achievement that has characterized universities in the past will no longer suffice; collaboration, or cooperation, is now vital — something we must learn more about, something we must help our students to learn. Clearly, it is important for our intellectual work. Collaboration is important both within and between disciplines. The need to promote interdisciplinary teaching and research is made apparent by the increasing complexity and interconnectedness of the problems both university faculty and graduates in the workplace will be called upon to address. The "scholarship of integration" — including linkages within and between the sciences, the social sciences, and the humanities — will be critical for life in the 21st century.

Collaboration is a strategy that must become more prominent in all of our functions, if we are to flourish in hard times. It is a strategy to be enacted on campus and off, locally, provincially, nationally, and internationally. It means (among many other things) working much more closely with alumni, and with other educational institutions, government, and the business community. Collaboration is not a new idea at the University of Guelph. It has, for example, been a strategy of choice in many of our research endeavours. But we must be still more collaborative in the future, particularly with respect to undergraduate education, support services, and infrastructure.

The need to reinforce the partnership between the academic and non-academic areas of this institution is, perhaps, greater than ever. There is little doubt that our commitment to the education and well-being of "the whole person" is an attractive and distinguishing feature of the University of Guelph and one that requires partnerships among all of us who dedicate ourselves to the development of our students. Internal cooperation must include, as a high priority, the need to develop much closer relations than hitherto between the academic programs and all support areas of the institution, as well as among the support areas themselves. Far too often, services in one area are truncated or eliminated without appropriate prior consultation; the unforeseen and unfortunate result is a transfer of responsibility from one unit to another with a loss of efficiency, or no gain.

Collaboration is a key to economic survival; in an intensely interdependent world, collaboration is vital in other ways as well. Only as a part, contributing with other parts to the work of the whole, will the University of Guelph — or individuals within it — be able successfully to serve the interests of both self and other.

RECOMMENDATION # 24: Collaboration with other institutions should be aggressively pursued, and systemic barriers removed, wherever possible:

- **The revised course timetable, the duration of semesters, and the examination schedule should be compatible with increased collaboration with Waterloo, Wilfrid Laurier, and McMaster. ACTION: Associate Vice-President Academic**
- **The transfer of course credits among Guelph, Waterloo, Wilfrid Laurier, and McMaster should be made as efficient and simple as possible. Students who take specialized courses at our neighbouring institutions that are not offered here should receive full academic credit for those courses. ACTION: Presidential Working Group on Collaboration, Board of Undergraduate Studies, and Board of Graduate Studies**
- **Undergraduate specializations with low enrolment or low financial resources should be considered as high priority candidates for collaborative offerings with Waterloo, Wilfrid Laurier, and/or McMaster. ACTION: Presidential Working Group and program committees**
- **Collaboration with our neighbouring universities, Waterloo, Laurier, and McMaster, in the area of academic and student support, such as the Library and registrarial functions, should be given high priority. ACTION: Presidential Working Group**
- **Collaboration with other universities, particularly in the development and delivery of specialized programs (including distance courses), should be aggressively pursued and not restricted to nearby institutions. ACTION: Board of Undergraduate Studies and Office of Open Learning**
- **Collaboration with community colleges should be fostered, and the transfer of course credits from colleges to the University of Guelph should be made as efficient and simple as possible. ACTION: Board of Undergraduate Studies**
- **Enhanced interaction with elementary and secondary schools in the areas of curriculum, pedagogy, the use of technology, and accessibility should be assigned a high priority. ACTION: Associate Vice-President Academic**
- **The University of Guelph should continue to play a leadership role in the Wellington County Consortium, and involve more sectors of the institution in collaborative ventures with the consortium. ACTION: Vice-President Finance and Administration**

There is now a commitment from the Presidents of Waterloo, Wilfrid Laurier, and Guelph to work aggressively toward greatly increased collaboration. The goal of this collaborative effort is to increase the breadth and quality of our academic programs while containing or decreasing the costs of program delivery. A newly

formed Presidential Working Group on Collaboration will facilitate co-operation in areas ranging from course and program offerings, through co-ordinated hiring of faculty, to shared infrastructure. Examples of productive collaboration with neighbouring universities, colleges, and schools abound. We must take pride in such initiatives as our joint graduate programs, our articulation agreements with colleges, our participation in the program serving the Six Nations Reserve, our electronically linked classrooms, and our continuing progress in dealing with shared library resources. But there is much more that could and, we believe, should be done.

In this era of dwindling public resources, collaboration may be the only way of maintaining areas of expertise in which we can no longer afford to be self-sufficient. For example, individual universities might each find it necessary to retreat from a subject area, when by working together they might preserve and enhance it. We do not have the resources to do all things for all people; thus, we must enrich our academic programs through collaboration with other institutions for the benefit of our students and the people of Ontario. Such collaboration should not be limited, however, to specializations that might otherwise be lost.

While this recommendation emphasizes the potential for collaboration with neighbouring institutions, it is at least equally important to embrace opportunities for provincial, national, and international collaboration. Such opportunities are increasing at an extraordinary rate, as a consequence largely of advances in technology — and we must seize them.

RECOMMENDATION # 25: Alumni and others who are active leaders in the business and wider community should be invited to advise the University on the revision of policies and procedures that may be limiting our relations with industry and other vital sectors, and to assist us in identifying opportunities for collaboration. ACTION: President

A successful strategy in business is the formation of strategic alliances and working arrangements among specific companies. Universities have done very little of this, perhaps fearing that the development of close ties with specific industrial partners would conflict with an ideal of impartiality. Also, a frequent prerequisite for relations with business is confidentiality; this might be seen to conflict with the values and policies of this university. There are, however, significant advantages to closer associations between the University and business. Where it is possible to develop such strategic alliances without compromising our principles as a university, we should do so.

Previous collaboration with business and industry has largely centred on contract research and technology transfer. While these activities must obviously continue and expand, other areas of potential collaboration, relating particularly to Open Learning and in-service training, will be important to the future of the University. The amount of in-house training and continuing education of employees within business and industry is immense and increasing. If we create this market for our courses and programs, we will also develop the opportunity to measure and demonstrate

the relevance of our curriculum. Several of our disciplines are particularly well-positioned in this regard. Collaboration in education, research, and service must, of course, extend well beyond business and industry, to include — as in the very important case of OMAFRA — government, NGOs (non-governmental organizations), and community organizations.

4. INTERNATIONALISM

The world faces challenges arising from population growth, resurgent nationalism and factionalism, ignorance, resource depletion, and the deterioration of the environment. Because these challenges are so vast and complex, multidisciplinary, multi-sectoral, and often multi-governmental initiatives are required to address them. Universities can (and should) play a vital role in meeting these challenges. The University of Guelph has since its beginnings had an unusually high level of involvement in international activities, particularly with respect to applied research and development. The moral imperative that such challenges present to the University was recognized in *Toward 2000*, as was the need to foster greater understanding of international and global issues.

In a world characterized by the increasing flow of people, ideas, information, capital, and products across national boundaries, we must be prepared to interact in positive ways with other cultures and global issues. The extraordinary capacity for world-wide, computer-assisted communication among individuals and institutions offers exciting opportunities in education as well as research. The University must be in a position to seize these opportunities and to collaborate effectively within the international community of educators and researchers. The increasing flow of ideas, people, and information is also contributing to changes of critical importance that are often poorly understood; foremost among these is the transformation of cultures, which it will be the task of scholars (among others) to address.

Through a wide range of international activities — including exchanges and institutional linkages; research, scholarship, and service related to other countries; research opportunities with foreign co-investigators; international product sales and marketing (academic materials, technologies, etc.); and international conferences — Guelph faculty can bring an increasingly international perspective to their teaching and research, find new sources of research support, and play an important role on the international scene. The involvement of graduate students in such activities, opportunities for graduate students to study abroad, and the participation of international students in our graduate programs, represent a critical dimension of the increased internationalism we seek at Guelph.

Above all, we have a responsibility to foster a global perspective and knowledge of other cultures in our students. We should increase the opportunities for international students to study at Guelph and for our own students to study abroad. Program structures must not unduly impede student participation in exchange opportunities and study abroad. The further development of curricula that incorporate international content and perspectives, and of programs with an explicit international orientation (such as

European Studies and International Development), as well as the study of foreign languages, are critical to the internationalization of the University. In these areas particularly much remains to be done.

International experience at Guelph is global in scope. The University community favours for its international activities a dynamic balance among disciplines, between graduate and undergraduate studies, between developed and developing countries, and among geographic regions. To a very large degree, our international activities are determined by the interests and entrepreneurial activity of individual faculty and by the availability of external funding. There can be no pre-determination of where such interests and opportunities will take us in the future, or of the countries from which international students at Guelph will be drawn. Specific opportunities in international development, a field in which the University of Guelph has been very active, will continue to be shaped by the priorities of external agencies and by the availability of funding. In short, we cannot — and would not wish to — limit ourselves with respect to the countries with which the University may engage.

At the same time, there are obvious limits to the breadth and level of activity that can be supported by University funds. This funding should be used strategically — to build on existing strengths and centres of academic synergy, to address issues of imbalance, to evaluate and provide seed money for the most promising opportunities that may arise, and to attract external funding in support of international activity. Thematic foci, building on strengths in such areas as post-colonial studies and international development, may be appropriate in this regard. We should also focus scarce institutional resources on those particular geographical areas where we are best positioned to seize opportunities and to make a significant contribution.

With respect to internal funding for international activities, the most pressing need we face is study abroad. Our experience in Europe, where Guelph's exchange agreements and semester abroad programs are concentrated, has demonstrated that the success of such programs is largely determined by our degree of familiarity with the institutions, people, and resources of a particular region. Prolonged association with a limited number of sites is more likely to yield significant results than is a more evenly distributed approach. This being said, it is, of course, the case that students can study in universities around the world on a letter of permission or by taking advantage of increasingly widespread exchange agreements.

RECOMMENDATION # 26: The Senate International Committee should set targets for study abroad and exchange, analyze resource requirements (including bursaries for needy students), and report to Senate by September 1996.

Exchange agreements, semester abroad programs, and other international study opportunities (including work/study and field study) are critical to the internationalization of the University of Guelph. In the near future, exchange agreements will offer the most realistic chance of substantially increasing not only study abroad for our Canadian students, but also the number of international students at the University of Guelph. These pro-

grams will, however, have only a minor impact on our overall learning environment until significantly more students participate. The SPC's preliminary view is that 20 percent of our students should have some study abroad experience at some point during their university careers. This target is viewed as being appropriate and achievable within five years: it represents, however, a considerable increase over current participation rate of approximately eight percent.

RECOMMENDATION # 27: The Caribbean and Latin America should be given greater prominence in the spectrum of international activities in which we are engaged. Particular attention should be paid to student and faculty exchange, study abroad, supporting courses (e.g., courses related to the natural resources, economics, cultures, and socio-economic and political features of these areas), the appointment of faculty who will bring to the University (among other needed strengths) expertise in these areas, opportunities to develop competencies in speaking the relevant languages, collaborative research, and the development of institutional linkages. ACTION: Provost, in conjunction with the Senate International Committee, should develop an appropriate plan of action and report to Senate by January 1997.

The intent here is to achieve focus in a second geographical area, to supplement our existing institutional focus on Europe (especially, at present, Western Europe). The European focus, especially apparent in study abroad opportunities, should be maintained and strengthened. Although the University does not have extensive involvement in the Caribbean and Latin America, faculty and student interest in this region is growing. The economic links with Canada are likely to strengthen rapidly, and proximity reduces some of the practical obstacles to interaction. Spanish, the most pervasive language of Latin America, is attracting an increased level of interest among our students; and the Caribbean nations make a fit with Guelph's interest in post-colonial studies. For these reasons, the Commission believes that a focus on this region is appropriate.

RECOMMENDATION # 28: The Board of Undergraduate Studies should evaluate ways of meeting our need to strengthen language instruction, and report to Senate by May 1996.

We must foster improved language acquisition by students, faculty, and staff. The number of languages taught in regular courses at the University of Guelph must clearly be limited, and those languages that are consistent with focus areas should have priority. (It should be noted that while most of our semester abroad programs permit students to work in English, skill in a second language will greatly enhance the experience of studying abroad and, of course, extend the opportunities of doing so.) Language training might be supported through an investment in modern interactive language training software, thus enabling the Department of Languages and Literatures, and also the Département des

études françaises, to concentrate faculty resources more fully in advanced courses in language, literature, and culture. Opportunities for collaboration with neighbouring universities and for the sharing of such resources should be examined.

5. OPEN LEARNING

What do we mean by "Open Learning"? The term itself encompasses the delivery of credit and non-credit courses to students other than those enrolled in undergraduate and graduate degree/diploma programs. The non-credit portion of the Open Learning operation was formerly called "Continuing Education." The credit portion arises from Senate's recent approval of a new Open Learning program, with an open admission policy, which offers distance education courses. Credits obtained by students registered in the Open Learning program are "banked;" that is, they are transferable to degree/diploma programs to which these students may subsequently be admitted. Students in the Open Learning program may be seeking advanced training in a professional field, or may be taking lower-level courses with the hope of transferring credits to a degree/diploma program at Guelph or another institution.

Distance courses developed for our regular students can also serve students registered in the Open Learning program, multiplying the benefits that will accrue to the institution. Other distance courses may be developed exclusively for the use of students in the Open Learning program with specialized (usually professional) needs. Because our regular distance courses will serve students registered in the Open Learning program, and because the development of such courses can assist the University in the delivery of its regular programs, **the strategic direction that the SPC embraces under the term Open Learning includes the whole of our distance operation as well as non-credit courses.** Its thrust, then, is two-fold: service to non-traditional learners, and service to our regular undergraduate and graduate degree/diploma students. Its reach must also extend increasingly to graduate studies, enhancing flexibility of programs and graduate student numbers.

Open Learning is proposed as a strategic direction because it can increase accessibility and service to the community — and because it will bring new money into the University. It responds to the new demographics and builds on current strengths, as reflected in unusually high distance enrolments. It opens our doors, extending our intellectual reach and thus our power to contribute to the common good, without straining our physical resources. With respect to our regular degree/diploma students, who will continue to comprise the main body of learners served by this institution, the choice of Open Learning as a strategic direction is a means of increasing curricular efficiency and richness (through expanded and improved distance education courses). Opportunities to generate significant revenue relate to non-credit courses and distance courses taken by students registered in the Open Learning program. Such opportunities may be concentrated in a limited number of departments and colleges; but a share of all Open Learning revenue will be made available to all academic departments, to aid curriculum development (including the development of distance courses) across the institution.

In the creation of distance courses, it will be critically important to assess what is needed and what is not because it already exists; we must collaborate in the development and sharing of resources if we are to achieve true excellence, avoid senseless duplication of effort, and enlarge our inventory. To compete in service to professional groups, the University should capitalize on its recognized strengths, identifying those market niches we are uniquely qualified to fill. The wise use of emerging technologies will be critical to our success in the broad field of Open Learning. We cannot, of course, move on all fronts at once; neither can we allow the creation of distance courses (and other Open Learning opportunities) to consume too great a share of our institutional effort. But in a carefully staged, strategic, and collaborative manner we can and should do more than we are doing now.

Like the other strategic directions proposed by the Commission, Open Learning has potential for all academic areas of the institution, at both undergraduate and graduate levels; like the others, it will require sustained effort. Open Learning will grow at the discretion of departments, as they see the potential for revenue generation and for increased flexibility and efficiency in the delivery of curriculum — as well as the potential to enrich campus-based courses with materials employed in distance courses. The SPC believes that the University of Guelph is well-positioned to respond to an ever-increasing demand for more flexible, life-long learning.

RECOMMENDATION # 29: The development and delivery of credit distance courses should be viewed as part of a department's teaching function and constructed as a normal part of workload. All distance courses should be periodically reviewed by departments, and all must be evaluated by students.

To implement this recommendation, it will be necessary to develop a resource allocation process that makes clear to departments the instructional load for which resources have already been provided. The current issue of "double-dipping," whereby some departments receive additional money (stipends based on course enrolments) for the delivery of credit courses by distance to students they can reasonably be expected to serve within existing budgets, must be solved — and can only be solved if such expectations are made explicit. The SPC recognizes that in those cases where development cannot be constructed as a normal part of workload, other means of supporting it must be found (e.g., the development budget of the Office of Open Learning and the Learning Enhancement Fund).

The Office of Open Learning will assist in the delivery and assessment of all distance courses (as well as non-credit courses). But fundamental responsibility for quality rests with the academic unit offering a credit course; and this responsibility, with respect to distance courses, must be taken more seriously in the future.

D. SUPPORTING OUR ACADEMIC PROGRAMS

Support areas should *support* the academic enterprise. The recent decision to have the Vice-President Academic function also as Provost is an important step in promoting appropriate integration and clarification of roles, but these must be fostered at other administrative levels as well. In relation to such critical issues as enrolment management, close cooperation between academic programs and the Registrar's Office will be essential. Close cooperation between the Office of Research and all academic units is equally critical; the creation of the position of Provost, to whom the Vice-President Research will report, ensures that research considerations will play an important part in decisions made by the Provost.

1. LINKS BETWEEN STUDENT SERVICES AND ACADEMIC PROGRAMS

While opportunities for more effective collaboration with academic units exist across campus, student service areas may be particularly critical. Our challenge is to harness and coordinate the considerable strengths that exist both there and in academic units, so that the commitment both groups have to the welfare of our students will yield the best possible learning experience. Examples of such synergy include the development of the Office of First-Year Studies and associated programs, Introduction To Higher Learning (58-150), and the very effective involvement of student affairs professionals with OAC's Vision 95. We believe that additional opportunities may exist. For example, the degree of integration between Teaching Support Services and the Counselling and Student Resource Centre should be examined by the units involved, with a view to clarifying roles and perhaps to creating a Learning and Teaching Group. Student affairs staff generally have an important role to play in support of an environment dedicated to learning. Working with faculty and students, they can foster appropriate extracurricular activity and bring specialized expertise to bear on the education of the whole person, helping to integrate the learning that takes place in academic programs with learning that takes place elsewhere.

2. ADVISING AND COUNSELLING

RECOMMENDATION # 30: The Associate Vice-President Academic should develop a plan for counselling and advising that reflects the following features:

- Program counsellors should report to the Associate VP Academic, as well as relevant deans.
- Greater equity must be achieved in the workloads of program counsellors.
- A central site for program counsellors (as opposed to academic

advisors located in departments) should be created, with particular emphasis on the needs of students who have not yet declared a specialization.

- Career counselling should continue centrally, but must also make its way much more effectively into departmental advising and program counselling.
- First-rate counselling documents must be produced at the department and program levels.
- More regular and effective communication among program counsellors and between program counsellors and departmental advisors must occur, as well as between these individuals and curriculum and program committees.
- The importance of the advising function must be reflected in the training and selection of departmental academic advisors, and their evaluation by Tenure and Promotion Committees.

Effective academic advising and counselling is critical for students, and must be a high priority for the University. Our counselling function has been examined from different perspectives and by several different groups over the past decade, and positive changes have occurred as a consequence of these reviews. Still, students looking back on their undergraduate careers remain seriously dissatisfied: only 45 percent of graduates express satisfaction with the quality of academic advising/program counselling, and only 29 percent with career counselling. The problems identified in earlier reviews of this function are addressed by the above recommendation. The University should also explore a range of options for making counselling and advising, both academic and personal, more cost effective.

3. LIBRARY RESOURCES

RECOMMENDATION # 31: To take advantage of changes in computing and networking technology, and to support our learner-centred, research-intensive agenda, a full range of electronic information sources and access tools must be made available to supplement conventional forms of information. The appropriate balance between monographs and journals (including electronic forms) must be examined in each discipline in light of needs related to self-reliant learning and research-intensive-ness.

ACTION: Chief Librarian, Provost, and Senate Library Committee.

The core function of the Library is to acquire, organize, maintain, and provide access to ideas and information essential to our academic mission. A growing body of this information will be available electronically, and the Library's ability to facilitate access, search, and retrieval of electronic information will be critical to the realization of a more learner-centred, research-intensive university. Dramatic advances in technology intro-

duce new challenges, but are extraordinarily timely: in an era of proliferating materials and escalating costs no research library can afford to own everything that faculty and student researchers will require. The solution to our quandary lies in collaboration with other libraries and other service providers on campus, to leverage maximum benefit from the new information technology. One immediate consequence is the use of document delivery systems, which can provide timely access to rarely used but occasionally essential periodical resources. Increased electronic access to information and bibliographic data bases around the globe will have far-reaching implications for Library acquisitions and priorities, as well as computing and communications infrastructure.

The Library budget as a whole must be re-examined in the context of strategic directions, access to a global information infrastructure, and ever-increasing demand for new kinds of services. Professional librarians should in future play a greater role in collection development. Historically, Guelph has relied heavily upon the efforts of faculty in this regard. While faculty must, of course, continue to play a major role, it is worth noting that most prominent university libraries have placed a greater emphasis on collection development librarians, to achieve balanced collections. A hybrid model seems desirable in a research-intensive, learner-centred university.

4. INFORMATION TECHNOLOGY

RECOMMENDATION # 32: The Provost should create a task force to (a) undertake a comprehensive assessment of the needs and responsibilities of the University with respect to computing and communications hardware, supporting software, resources (human and financial), and decision-making structures, and (b) having sought out the advice of other universities and private-sector computer companies, develop a comprehensive plan that will be responsive to evolving needs and technological opportunities over the next decade, particularly as these relate to the delivery of academic programs. ACTION: Provost should present the report to Senate for information and action by June 1996

Recent advances in computing and communications technology are nothing short of revolutionary. Powerful low-cost workstations, the convergence of voice, data, image, and video technologies, and the explosive growth of worldwide networks offer opportunities that will have a profound impact on the University of Guelph. Soliciting the best possible advice, developing the right decision-making process, choosing the right opportunities, and then investing in hardware, software, technical support, and appropriate training will be essential.

Equally challenging is the need to preserve flexibility; we must be able to adapt to changing needs and opportunities.

Computer-assisted instruction is one important way of addressing both faculty/student ratios and increased emphasis on self-reliant learning; it will also play an important part in initiatives relating to distance education and inter-university collaboration. Student access to computers is addressed in an earlier recommendation, but in this regard and others it is essential to have a unified policy (e.g., institutional standards for hardware and software); the University cannot allow individual departments or colleges to "go it alone" because of its own tardiness in adopting the most appropriate policies and technologies. Faculty and staff access to appropriate computer hardware, software, and networks is also essential but is not given a sufficiently high priority in some areas of the University. Other critical issues to be addressed include adequate support and training; the use of a common, comprehensive database for management information; one-time data entry at the initial point of transaction; and the University's urgent need for an automated registration system, to facilitate enrolment management.

5. PHYSICAL RESOURCES

RECOMMENDATION # 33: Teaching Support Services, with assistance from the Board of Undergraduate Studies, Physical Resources, and the Office of the Registrar, should undertake an assessment of classrooms and undergraduate laboratories on campus, and develop a strategy for optimizing the use of the existing facilities, reporting to Senate by December 1995.

A reassessment of the nature, quality, and allocation of space for teaching and research will be essential to the realization of our vision. Factors that must be taken into account include: adaptation of facilities to the use of new technology; changes in the configuration of classrooms to accommodate small group interaction; the possibility that new large lecture halls, break-out rooms, or labs may be required; space that can be re-assigned and/or reconfigured as a consequence of declining faculty numbers (including office space and lab space); and needs arising from the restructuring of academic units. When decisions have been made on instructional strategies, a prioritized list of renovations and reconfigurations required should be developed.

Of particular concern to the SPC is the issue of undergraduate laboratory space, and its importance for experiential learning. Guelph is well below the system average for undergraduate lab space, and above the system average for research labs. The line between the two categories of use may not (and should not) be absolute in a research-intensive, learner-centred university; undergraduate research projects, for example, are often carried out in research labs. We must assess the adequacy of all existing lab space and how effectively this space is used. This will require reassessing the intensity of use of all labs across campus, considering the best possible future use of research labs freed up as a consequence of downsizing, and, if necessary, changing the scheduling or duration of labs to meet student learning needs.

E. CHANGING OUR ACADEMIC PROGRAMS

Given a reduced faculty complement, we have no choice but to reduce the number of our courses and course offerings. While the recommendations contained in this section of the report have other very important objectives, all (in varying degrees) will help us to prosper in the face of significantly reduced faculty and staff numbers.

1. THE SEMESTER SYSTEM

RECOMMENDATION # 34: The University should move to fall entry only for new undergraduate degree students, as soon as it is operationally feasible to do so. ACTION: Senate and Associate Vice-President Academic

The report to the SPC on "The Advantages and Disadvantages of the Semester System" concluded that there are very few fundamental differences between our semester system and the so-called "annual systems" operated by most Ontario universities. The feature that makes our system unique is only an operational one: the University of Guelph offers three annual entry points to its credit courses and most of its degree programs for diverse groups of students. Although our three entry points provide students with more flexibility, the great majority still choose to begin their university careers in the fall semester. The impact of accommodating the small number of students who enter in spring or winter is enormous; it pervades almost every aspect of our undergraduate curriculum, learning and working environment, allocation of resources, and administrative procedures.

Three entry points generate multiple student cohorts, and this influences curriculum design, including the timing and frequency of course offerings over the academic year. Multiple cohorts influence academic procedures and the way in which non-academic units deliver services. Lack of cohesive student cohorts within many programs may actually impede peer-based learning because of a lack of familiarity with one's classmates.

All of this takes its toll on the community. We do almost everything three times during an academic year. Every semester, students spend inordinate amounts of time and energy "chasing the system" with its steady diet of pre-registration, drop/add, renewal of library privileges, fees to be paid, and other bureaucratic deadlines. Doing everything three times a year in order to accommodate approximately 100 to 200 students is inefficient and has high opportunity costs. Everyone's time, especially the students' time, could be spent more profitably if we reduced the number of "chases" over the academic year.

With the elimination of the winter undergraduate registration period, all new entering and in-course undergraduate students would register for fall and winter courses before the beginning of the fall semester. This might lead to a single billing period for the two semesters. The option of two instalment payments for tuition should be retained. The SPC does

not believe that the single entry point should be used as a method of generating additional revenue for the University related to the timing of fee payments.

RECOMMENDATION # 35: The spring semester must be restructured with a view to increasing efficiency.

ACTION: Associate Vice-President Academic and Board of Undergraduate Studies

The University should continue to operate a summer session, but to increase efficiency course sections should be reduced at least in the short term; the mix of course offerings should change; and distance courses should play a more important role. The details and process of downsizing must be left to programs, departments, and colleges.

The spring semester was expected to play an important role in the University of Guelph's semester system. The 1990 report of the *Senate Committee on University Planning* clearly shows that our expectations have not been realized. Over the 1979-1989 period, Guelph's spring Full-Time Equivalent (FTE) enrolment as a proportion of fall FTE enrolment averaged 14 percent compared to the Ontario university system average of 22 percent. Many attempts have been made to improve the performance of the spring semester, but despite these, the relationship of spring enrolment to fall enrolment has never surpassed 19 percent. The vast majority of students registered in the spring semester take three or fewer courses. The small class size and informal atmosphere prevalent in our spring courses are attractive, but must be weighed against resource implications and inequities created with respect to the fall and winter semesters. In Spring 1993, for example, the University offered courses equivalent to 30 percent of those offered in Fall 1993, but received only 18 percent of the fall enrolment.

The University cannot rely on in-course students to sustain the viability of the spring semester. Moreover, the issue of required courses for co-op students in the spring semester must be re-evaluated. The overriding principle is that classes in the spring semester should be of a size comparable to that of classes in the other two semesters. To achieve this, we will have to reduce the number of spring offerings at least for the short term. A reduction of course offerings would also extend the availability of campus facilities for other educational purposes, including those that generate revenue for the University.

The SPC strongly recommends also that the University investigate the feasibility of coordinating its spring offerings, including distance courses, with the summer offerings of other institutions. This matter will be important particularly with regard to the needs of co-op students. Such an investigation should include the development of reciprocal agreements with other institutions of course equivalents.

2. COURSE CREDITS FOR GRADUATION

RECOMMENDATION # 36: The University should adopt a credit system in which courses are weighted as 0.0, 0.5, 1.0 (the current norm at Guelph) 1.5, 2.0 credits.

ACTION: Board of Undergraduate Studies

Our current system requires a specified number of courses for graduation from a program (e.g., 30 courses for a General B.A. or B.Sc., 40 courses for an Honours B.A. or B.Sc.). All courses have equal weight. (The very few year-long or double-weighted courses we have actually carry two course numbers.) This system has been criticized as inflexible and inequitable. Students carrying a full course load generally take five courses per semester, thus, it is argued, having to focus on too many different things at once. A more flexible system, permitting greater concentration, would increase learning. Courses having very different workloads associated with them — e.g., science courses with and without labs — carry the same value for graduation and computation of averages, and this is widely regarded as unfair.

Courses must be evaluated to determine the appropriate credit value; this credit value should NOT be based on contact hours, because that is inconsistent with the concept of self-reliant learning; instead credit value should reflect the time required for students to do their work well. This recommendation will allow the University to employ a wider range of course formats, and allow students a more intense intellectual focus. The credit system allows program committees to determine where a smaller number of specially designed courses — e.g., three courses at 1.5, plus one at 0.5 or one at 2.0 and three at 1.0 in the first or fourth year of a particular program — will result in greater student learning. It increases flexibility for students, and small group and independent study possibilities, in making it possible to offer a course at 1.0 or 1.5 credits according to whether the student takes an attached seminar, lab, or research option. The 0.5 option facilitates a modular approach to curriculum development, and makes it possible to address the problem of substantial (but not complete) duplication across programs: thus, a single course for 0.5 might contain the common material and others at 0.5 the more specialized material serving different programs. This same model — 0.5 plus 0.5 — would make it possible within a given department to have one set of lectures serving all students in a particular subject area and a choice of related seminars. The 0.0 weight is proposed as a means of tracking required non-credit courses or modules. The credit system is NOT a strategy for short-changing our students. While it will reduce the number of courses that some of our students take overall, its intent is to increase learning.

If the recommendation is accepted, there are implications that program committees and the Associate Vice-President Academic will have to address — including graduation and program requirements, rules concerning continuation of study, calculation of grade averages and tuition fees, and the definition of a full-time student. A credit system is already used for graduate courses and may require adaptation to ensure consistency between the graduate and undergraduate systems.

3. PRIOR LEARNING ASSESSMENT

RECOMMENDATION # 37: The University should adopt a system for assessing prior learning and

skill development; a student who can demonstrate possession of the knowledge or skills to be developed in a course would receive credit for that course towards a degree.

ACTION: Board of Undergraduate Studies

Some students enter the University with experience and knowledge equivalent to that offered by some university courses. There are mechanisms in place to give them advance credit on entry for knowledge or experience acquired in other educational institutions, but there is no mechanism currently available to recognize knowledge acquired in a non-institutional or continuing-education setting. One way of giving such recognition is to exempt students from courses for which they have the equivalent knowledge, if such courses are required or prerequisites for required courses. But such students still have to meet graduation requirements in terms of total number of credits acquired at Guelph or some other educational institution. Our system is a waiver of requirements, rather than direct credit. Another approach is to allow students to demonstrate formally that they already have the necessary knowledge. This approach, also known as "challenging a course," is already in use in some other institutions. If the assessment or "challenge" is successful, the student is given credit for the course, and total requirements for graduation are reduced. Program committees, in consultation with departments, will probably wish to place a limit on the number of courses for which a student might request an assessment of prior learning. The prior learning assessment option is proposed as cost-effective and equitable. The cost of assessment is met by a fee assessed to students, and the University reduces enrolment pressure. The student avoids wasting time and money.

4. REVIEW OF PROGRAMS, SPECIALIZATIONS, AND COURSES

A great task that faces the University is the thorough review of its programs, specializations, and courses. Part of this task is a paring away of courses and specializations, to accommodate the loss of faculty and to achieve greater efficiency; and part is a vital reconstruction of the curriculum, in pursuit of our strategic directions. We do not have the luxury of standing back from the curriculum, reimagining it in its entirety, and then implementing change. In particular, we cannot wait to remove from the system work that we will no longer have the faculty to perform. This must be our first priority. Taking into account the reduction of the regular faculty complement, the increased sessional budget, increased per capita responsibility for the teaching and supervision of graduate students, and the additional time needed for initiatives related to the learner-centred University, we estimate that a **minimum of 400** undergraduate course sections (or 20 percent of existing course sections) will have to be dropped. Approximately 100 of these can be eliminated with relative ease by the move to single entry; others involving duplication of effort can also be culled without real hardship. The challenge is still a considerable one. But we must find time, and then spend time, if we are to use time more effectively in the future.

As courses and specializations are deleted, it will be important to keep certain boundary conditions in view. These relate, of course, to the objectives of the learner-centred curriculum we will be constructing over the next decade, to our Strategic Directions generally, to the need for students to graduate in a timely fashion, and to the possibilities that are generated by a move to the course credit system. Not all of this will be clear at once, but to the extent possible we should coordinate course deletions with future anticipated change. Imagination and a firm grasp of reality will be needed, as we begin this iterative process. Cooperation among departments, program committees, and the Board of Undergraduate Studies will be critical. Information related to changing resources must be fed into the process; the Board of Undergraduate Studies and senior academic line management will be responsible for ensuring that this essential link is made. The Board itself will require of program committees, and program committees will require of departments, a commitment to expedite change in keeping with the University's Strategic Plan.

Goals must be set quickly for the reduction of course offerings. Some departments have already reduced course offerings to the necessary level; but most departments will need to have goals for reduction, and these will vary considerably. In addition, the Board of Undergraduate Studies must ensure that course offerings vital to students in other departments or programs are not eliminated by departments seeking to maintain an impracticable level of curricular richness for their own honours programs.

A reduction in the number of offerings will indeed reduce curricular richness and result in an increase in average class size. While a move to reduce the richness of our offerings cannot be taken lightly, it is worth noting that the diversity of our offerings far exceeds that of other universities with whom we compete for students. The increase in the size of some classes is at least equally problematic, because that impact must be reconciled with the objective of increasing the number of small group learning experiences available to students. The extent to which these competing objectives are realized will depend partly on the degree to which efficiencies in other aspects of teaching occur, and partly on a more flexible approach to course scheduling.

With effective independent learning modules in place, faculty members could spend less time in lecturing and more time supervising research or designing tutorials to be led by graduate students and/or senior undergraduate TAs. Or, a more flexible approach to the scheduling of course components might allow faculty teaching large courses to meet with smaller groups on an occasional basis. To offer just one among many possible examples, a course involving 150 students might include independent learning modules, a one-and-a-half hour lecture each week, and a one-and-a-half hour seminar for 25 students every other week, four of the sessions being led by a GTA and two by the professor; this would involve 18 hours of seminar instruction by the professor — yielding, on top of 18 hours of lecture time, the current norm of 36 contact hours. Clearly, to arrange small group experiences in a substantial number of our courses will be dependent on these three strategies: increased use of learning technologies; the

use of teaching assistants; and especially to the extent that faculty are involved in small group work directly, the purposeful demise of any notion that each week's schedule for each student must be the same as any other's. It is realistic to expect that small group experiences will be available only in selected course offerings, but a coordinated effort should be made to provide such experiences with decent regularity from the beginning to the end of each student's university career.

This discussion may illustrate how insistently the mind moves from a contemplation of increased class size to strategies for enhancing learning. This insistence, or the ingenuity and dedication of our faculty, is what we must rely on. As we pare away, we will also begin to build a new curriculum. The process, of course, is an ongoing one; and the implementation of major change called for by the strategic plan will extend over several years. To effect that change, we must take advantage of every device at our disposal (including learning technologies, collaboration, and the proposed course credit system); we must adopt a much more systemic approach to curriculum design; and we must ensure that program committees and the Board of Undergraduate Studies are extraordinarily proactive.

a. Undergraduate Specializations and Courses

A review of specializations and courses is called for in order to identify those specializations and courses that should continue, and those that should be dropped. Similar criteria will apply for specializations and courses, and these will be used also to assess proposals for new specializations and courses.

RECOMMENDATION # 38: The Board of Undergraduate Studies (BUGS) must begin an ongoing review of all specializations, with a view to reducing the number of specializations. The review should be based on a common set of criteria which include:

- (1) the compatibility of the specialization with the University's mission;
- (2) the extent to which the specialization duplicates or overlaps with other specializations on campus, and the societal need for the specialization, including the availability of comparable specializations at other Ontario institutions;
- (3) the availability of necessary resources (including personnel, library and computer resources, studio and laboratory space) to offer the specialization at a level of quality the community (i.e., Senate) deems acceptable academically;
- (4) the actual or anticipated enrolment in the specialization.

The Board of Undergraduate Studies is expected to fine-tune these criteria and subsequently apply and enforce them in assessing proposed and ongoing specializations and report annually to Senate.

Further, we recommend:

- (i) that new specializations should be approved by Senate only if they satisfy all criteria;
 - (ii) that the number of courses approved for any specialization should be a minimum required to maintain a viable specialization with additional courses only where enrolment warrants;
 - (iii) that BUGS and Senate should approve new specializations only where there is documentation of resources being available to support them;
 - (iv) that in cases where apparent duplication between undergraduate specializations exists, BUGS should instruct the relevant program committee(s) to determine how the specializations concerned should be differentiated or amalgamated;
 - (v) that for existing undergraduate specializations, BUGS should instruct program committees to complete and then continue the reviews on a five-year basis; that these reviews should begin with those specializations having the lowest enrolments; and that special efforts should be made to determine whether the viability of low-enrolment specializations can be improved by inter-institutional collaboration. Explicit recommendations should be made for discontinuation or change in cases where *either* enrolment falls below an acceptable level *or* resources are insufficient to ensure acceptable quality.
- RECOMMENDATION # 39: A review of courses must be carried out in conjunction with the reviews of specializations, with a view to reducing the number of courses. The Board of Undergraduate Studies should take the following criteria into consideration in the review of course offerings and the assessment of whether undergraduate courses are introduced, continued, or discontinued:**
- (1) the possible requirement of the course within an approved specialization;
 - (2) the availability of sufficient resources to offer the course;
 - (3) the extent to which the course duplicates or overlaps with other courses on campus;
 - (4) the frequency of offerings and the feasibility of offering the course either in alternate years or in the distance mode;
 - (5) the opportunity for collaboration with neighbouring institutions;
 - (6) the infrastructure — such as library and computer resources, and studio and laboratory space — needed to operate the course at a level of quality the community feels is acceptable academically;

(7) the actual or anticipated enrolment in the course.

The Board of Undergraduate Studies is expected to fine-tune these criteria and apply them in assessing proposed and ongoing courses and report annually to Senate.

Further, we recommend:

(i) that new courses not be approved by Senate without consideration of all the points listed;

(ii) that specializations, to the extent possible, specify courses as "required" or "elective," rather than as "choose x from among y," so that the impact of continuing or discontinuing a course offering can be more readily ascertained;

(iii) that enrolment be a more significant criterion for introducing or continuing courses that are used only as electives;

(iv) that BUGS give special consideration to low enrolment courses that serve as honours projects, occasionally offered special topics, and reading courses at the 400 level;

(v) that complete listings of all undergraduate courses offered during the previous two years and their enrolments be available, on an ongoing basis, to departments and program committees to assist them in the development and management of their programs;

(vi) that courses appearing in the calendar be offered no less frequently than on a two-year cycle; that semester offerings be designated; and that any course not offered during this cycle be removed from the calendar unless it is a special topics course. Irregularly offered courses should be confined to a series of course numbers reserved for "special topics" under each specialization.

RECOMMENDATION # 40: Program committees must assume institutional responsibility for ensuring that the four elements of the learner-centred agenda (self-reliant learning, the research-teaching link, skill development, and experiential learning) and the Strategic Directions of the University are addressed optimally by the curriculum they oversee. In particular, they should promote:

- methods of instruction that foster self-reliant learning, including the involvement of undergraduates in research and other creative activity;
- small group experiences, such as seminars, laboratory sessions, and projects in which communication and interpersonal skills are purposefully developed;
- the internationalizing and cultural inclusiveness of curricula; on this matter, the Board of Undergraduate Studies should report to Senate by September 1997, informing the community of progress made by its program committees.

This recommendation calls attention to the pivotal role of program committees, which must in general become more proactive as we develop a more systemic approach to curriculum. Too great a proportion of the effort of many program

committees is currently being spent on the minutiae of course and program changes, and too little on the overall management of the degree program. Senate has given clear mandates to program committees, and these mandates must be carried out under the leadership of program committee chairs and BUGS. Program committees may also require restructuring. Members of program committees should be appointed by the Dean(s) to guide the program. Committees must be of a manageable size; thus, not all departments, councils, or interdisciplinary programs will be represented.

b. Graduate Specializations and Courses

Separate internal reviews of graduate specializations are considered unnecessary, since these are all externally appraised. As far as possible, departments should organize their graduate courses in the manner best suited to the program, an exception being courses that have a "service" function for students outside the department. In this case, the Board of Graduate Studies, acting in a role parallel to that of an undergraduate program committee, would need to protect the interests of students outside the home department. We suggest that the Graduate Calendar follow the practice of the Undergraduate Calendar in identifying semester offerings for all courses, and list only those courses that would be available during a two-year calendar cycle, with less frequent offerings advertised as special topics. The rationale for this change is to allow incoming Master's students, who typically stay about two years, to plan their course work upon arrival.

F. CHANGING OUR ACADEMIC STRUCTURES



The SPC's Academic Planning Committee was asked to assess the University's current structure involving departments, colleges, faculties, program committees, and centres in relation to alternatives and the potential for re-configuration. The objectives of the assessment included enhancing interdisciplinary teaching and research, improving the University's ability to renew and reform curricula, and increasing efficiency in the use of resources. Among the weaknesses of the current academic structure identified by the Academic Planning Committee, the following are particularly significant:

- Boundaries between departments and colleges inhibit interdisciplinary and interdepartmental activity in numerous ways, including lack of resources for programs that are not clearly identified with a specific department and lack of recognition for faculty and staff for work done outside the department's major area. Another consequence is a lack of flexibility to pursue new initiatives occurring in disciplines that bridge the mandates of more than one department, e.g., environment, biotechnology.
- In order to promote interdepartmen-

tal/interdisciplinary activities, the University has established a complex system of interdepartmental/interdisciplinary committees, faculties, councils, and research centres. These structures have been designed to facilitate collaboration, but their effectiveness is limited to a significant degree by their virtual isolation from the resource-allocation process.

- A number of departments assigned to different colleges in the 1969 configuration of the University have contiguous roles. Mandates of such departments were distinguished primarily by their applied orientation (e.g., Family Studies) or basic orientation (e.g., Psychology). As these departments and their colleges have evolved, the distinguishing features have begun to blur, introducing real or potential duplication in academic programs and faculty resources.
- To accommodate the required downsizing of our faculty and staff, and protect quality in teaching programs, the University must have flexibility. But departmental and college boundaries make it difficult for faculty in one department to teach courses in another, even if academically qualified. Teaching assignments are sometimes made not in the best interest of the University, but in the best interest of the department.
- Most degree programs have evolved in such a way that they are no longer embodied in a single college. As a consequence, administrative responsibility for some of our major undergraduate programs is separate from control of the budget, staff and faculty hiring, teaching assignments, merit evaluation, etc. In one case, the BSc(Env), a complete degree program lies outside the college structure. Most program committees do not fulfil the mandates given to them by Senate (see Senate Bylaws pp. 52-54, especially item 8). The exception may be the BSc(Agr) committee, but in this case the OAC Dean could use his budget authority to implement changes proposed in Vision '95. Similar changes to the undergraduate curriculum in the BSc and BA programs require coordinated action by two or more deans and are therefore harder to achieve.

- There are problems in tying graduate teaching assistantships, and therefore the University's financial support for graduate programs, to the undergraduate teaching needs of a department. Departments with large undergraduate service courses have GTAs to support their graduate programs, whereas those without them must find research or other external funds to support their graduate program.

1. COLLEGES

RECOMMENDATION # 41: A review of the college structure and the effectiveness of councils should be undertaken and a report made to Senate by June, 2000.

Possible realignments of departments within colleges have been considered with a view to enhancing the degree of interaction between departments with a "pure" and "applied" science focus, as well as reducing the number of colleges. Some reduction of administrative costs could also presumably be achieved in this way. However, a compelling case has not yet been made for any particular reconfiguration of the colleges. Subsequent recommendations regarding departments and interdepartmental structures may result in considerable change over the next five years. A re-examination of the distribution of departments across the colleges and of the number of colleges will be appropriate at that time.

2. DEPARTMENTS

Every department was reviewed by the Commission's Academic Planning Committee. Several departments, or parts of departments, were considered to have roles that were contiguous and/or complementary. The SPC has not undertaken a detailed analysis of the relationships between these departments, their academic offerings, or their level of resources. Any opportunities for further strengthening of the programs in these departments through greater collaboration or realignments, however, do merit further examination; the departments in question are best positioned to undertake this assessment. Other departments are strongly encouraged to pursue similar opportunities.

RECOMMENDATION # 42: Discussions should be initiated (or continue where already under way) in the following departments to examine the advantages and disadvantages of realignments or closer association through participation in councils

- Veterinary Microbiology and Immunology/ Pathology
- University School of Rural Planning and Development/ Landscape Architecture/ Rural Extension Studies
- Environmental Biology/ Horticultural Science
- Land Resource Science/ Geography

Particular attention should be paid to implications for change in administration, hiring of staff and faculty, sharing of space and equipment, and coordination of course and program offerings (graduate and undergraduate). Discussions should be facilitated by the Dean where the departments are in the same college and by the Provost where the departments are in different colleges. The facilitator should define a schedule for completing each discussion, and the Provost should report the results of all discussions on realignment/closer association of departments to Senate no later than January 1996.

The nature and extent of collaboration that is appropriate for different units will vary. Departments associated with the

first two of the combinations identified in the recommendation have already begun discussions on merging.

3. COUNCILS

Various structures have evolved that cut across departmental lines and are intended to facilitate communication and collaboration in teaching and research. Interdepartmental structures vary in purpose and duration, and are appropriately established with varying degrees of formality. Such structures can operate as vehicles for departments with contiguous responsibilities to examine opportunities for consolidating undergraduate and graduate programs and for using physical, financial, and human resources more effectively; they may represent in some cases an intermediate stage in the evolution of such departments into new, larger departments — which the Commission believes should evolve, as opposed to being forced. Facilitating the evolution of structures, achieving efficiencies, and enhancing interdisciplinary activity are, of course, key objectives of the Strategic Plan.

Where interdepartmental activity occurs within a college, the Dean and Dean's Council should be responsible for developing appropriate structures. More problematic are interdepartmental structures that span colleges. The concept of councils has been employed in many areas and appears to be working well for the University. Building on this experience seems to the Commission a sensible answer. Recommendation # 43 articulates the general responsibilities (and composition) of councils; it is not expected, however, that a single model or set of responsibilities would apply to all councils. In its discussion of particular areas below the main body of the recommendation, the Commission proposes several new councils and identifies issues that should be addressed by existing councils.

Although the work associated with councils must be tied (through associated departments and colleges) to the resource allocation process, councils are not proposed as budget units. Neither are they envisaged as adding an extra layer of bureaucracy that would impede or usurp normal departmental activity. Councils are simply coordinating bodies for interdisciplinary and interdepartmental activity. Decisions affecting interdisciplinary activity must be made; and the alternative is to transfer this responsibility to the vice-presidential level, where subject-specific expertise will be less. Councils, the SPC believes, should be seen as extending the reach of associated faculty and the authority of Chairs. Councils will involve departmental Chairs in more complex issues of management, and will challenge them to play a decisive role in fostering the strategic direction of collaboration. The membership of councils will vary in accordance with the primary functions of each, but must be kept at a manageable size.

The relative emphasis to be placed on communicating and coordinating across disciplines, as contrasted to examining opportunities for consolidating departments and their teaching programs, will vary with the council. The recommendations for each area, therefore, reflect differences in the nature of responsibilities and the stage of development of councils in the different areas. Many of our interdepartmental graduate pro-

grams and undergraduate specializations, as well as some research centres that span colleges, relate to one of the councils discussed below. It is reasonable to expect that councils would take on responsibility for relevant programs and centres; interdisciplinary programs or centres that are not compatible with the proposed set of councils could, of course, continue in their present form.

RECOMMENDATION # 43: Present and proposed councils should be given responsibility to coordinate interdepartmental activities and, where appropriate, to coordinate faculty and staff hiring. For those parts of departmental undergraduate activity that fall within the Council's purview, the following responsibilities currently vested in departments should be coordinated by the council: curriculum development, student advising, administration of the relevant majors, minors, and specializations, and teaching assignments. Each council should, at minimum, include the Chairs and/or Deans of member departments and colleges, and might be chaired either by these individuals in rotation or by a specially appointed council Coordinator. One Dean should be appointed ("designated") to represent the council on VPAC. One of the responsibilities of councils is to determine whether, or at what rate, cooperation between units should evolve towards merger of departments. A senior academic should be appointed as "facilitator" in each case to monitor progress towards the Council's specific goals and report to the Senate Committee on University Planning (SCUP). Councils should be reviewed by SCUP every five years to determine whether they are meeting their mandate, and whether there is a continued need for their existence.

Animal Science

- **The Animal Science Council should coordinate undergraduate courses and programs, graduate programs, and Open Learning offerings with a view to maximizing efficiency of program delivery and elimination of duplication, and should coordinate hiring. Following reorganization of the programs, this Council should recommend departmental realignments in the broad area of animal biology. Coordination of the graduate program in Aquaculture should also reside with this Council.**

The Commission welcomes the establishment of this new council, which involves Zoology (CBS), Animal and Poultry Science (OAC), and all departments of OVC. The role of entomology in the Council will have to be explored. The University of Guelph has enormous strength in pure and applied animal biology, and coordination in this area is important.

Business

- **The Business Council should extend its efforts in coordinating undergraduate and graduate education on campus and include involvement with neighbouring universities. Attention should be given to a growing need to include business-related experiences for students in other programs and growing opportunities related to Open Learning.**

The Business Council has been one of the University's most successful attempts to break down the barriers between departments. The successes include the recent revamping of the BComm undergraduate degree through cooperation between the Departments of Agricultural Economics and Business, Consumer Studies, Economics, and the School of Hotel and Food Administration. This effort has also led to the development of two niche MBA programs, and all of this in times of decline in faculty numbers and of increases in student interest in the various programs offered by the departments. The Commission supports the work of the Business Council, noting that there would be value in expanding the Council to include Psychology (e.g., industrial psychology) and Sociology/Anthropology (e.g., sociology of organizations) and in pursuing the initiative already begun to collaborate with nearby universities (e.g., between Hafa and Waterloo in the area of Tourism). We also foresee that there will be great pressure to include business-related experiences for students from other programs. This exposure could run all the way from the addition of a few courses to a program through to the addition of a complete year of such courses as part of a five-year program. However, such initiatives would have significant resource implications.

Environment

- **The existing Environmental Science Council, together with the deans of the relevant colleges, must reconsider the membership of the Council with a view to enhancing collaboration among all departments with an interest in the environment. In recommending changes, priority must be given to including these deans as members.**

Five years ago the University made a decision to build upon its many relevant strengths to develop an undergraduate program in environmental science, to complement the more common environmental studies programs at a number of other universities. The BSc(Env) degree program that was developed, as an initial step, remains perhaps the best example of a broadly based environmental science degree in Canada. The Faculty of Environmental Sciences was created with a membership drawn from faculty across campus to support this program and to promote the range of environmental programs offered by the University. The Faculty has subsequently become the administrative "home" for the Director of the Institute for Environmental Policy and for three major interdisciplinary research initiatives — the Tri-Council Research Program in Agroecosystem Health, the

Tri-Council Chair in Ecosystem Health, and the Computing Research Laboratory for the Environment. A proposal for a new Master's degree program is currently being developed. While these accomplishments have been particularly significant, there are issues that merit further attention.

Foremost among these issues is the structure of the Faculty itself. Many faculty across campus are involved in teaching and research related to the environment, and yet there is no formal administrative link between these faculty, their chairs, and the Associate Dean of Environmental Science. Opportunities for coordination in hiring, the use of physical resources, and course offerings exist among these units. The sheer number of units involved, however, creates a major challenge. Related to this issue is the need to accommodate "non-science" units with interests in the environment, such as those supporting the environment major within the BA program.

The Academic Planning Committee considered a number of options for the Faculty of Environmental Science, including the formation of a separate college, inclusion in a new college of agriculture and environment, and abandonment of the Faculty altogether. The Committee subsequently recommended that the Faculty be retained in its current form. The SPC fully supports this recommendation. The position of the Associate Dean of Environmental Science is unique within the University, and the Commission supports retaining that position with the responsibilities currently described. The need for more effective coordination, however, still remains.

The present Environmental Sciences Council was established to advise the Associate Dean, assist with coordination, and function in a manner parallel to that of a college Dean's Council. The membership of the Council includes the Associate Dean, the Designated Dean, and a chair from each college that is directly involved in the BSc(Env) program. A membership that is similar to the membership of other councils may be more appropriate to address the need for increased collaboration. This would require, as a minimum, participation of the deans from each of the colleges; in this way, all departments would be represented at least by their deans. (The inclusion of over 20 chairs is thought to be unwieldy.) It may also be desirable, in this Council particularly, to include in the Council's membership some additional faculty with strong interest in the field.

Food

- **After paying much attention to the area of research and the interface with industry, the Food Council should now pay more attention to undergraduate matters, where the situation is characterized by relatively rich course offerings and relatively low enrolments in several of the food-related undergraduate programs, an exception being Applied Human Nutrition.**

Since its creation almost five years ago, the Food Council has served as a link between the many departments on campus that have a role to play in the area of food. The recent relocation of federal and provincial government administra-

tion and research facilities, as well as the establishment of the highly innovative Guelph Food Technology Centre, should provide many opportunities for fruitful collaborative ventures among the University, government, and industrial sectors. The departments constituting the Food Council have not yet participated to an equal extent in its activities, nor has there been balanced involvement of the Food Technology Centre in undergraduate, graduate, and research matters.

Microbiology

- **A Microbiology Council should be formalized to coordinate the University's activities in microbiology. This group should have the responsibility for determining whether any consolidation of microbiologists into a smaller number of departments should occur.**

Microbiology is a cross-department activity which takes place in the Departments of Microbiology (CBS), Environmental Biology (OAC), Food Science (OAC), and Veterinary Microbiology and Immunology (OVC). All four departments, together with Molecular Biology and Genetics, cooperate in offering undergraduate courses through an informal Microbiology Council consisting of the Chairs. Cooperation between Microbiology and Veterinary Microbiology and Immunology, in particular, occurs at the research level; however, the interdepartmental graduate program in microbiology was recently removed from the graduate calendar for lack of interest.

Molecular Genetics

- **A Molecular Genetics Council should be created and have responsibility for coordinating aspects of the relevant teaching programs. The Council should coordinate hiring and the acquisition, housing, and maintenance of research equipment infrastructure that is needed to support research and teaching in this area.**

The field of molecular biology has revolutionized teaching and research in all areas of biology, and has spawned the growing biotechnology industry. Biotechnology is taken here in the broadest sense to encompass an array of scientific tools used to study or modify the growth, reproduction, and development of living organisms. Biotechnological methods are used in both basic and applied research, and their widespread adoption has blurred historical distinctions among many biological disciplines. These technologies are being used to dissect the complex molecular processes that control activities at a cellular level. The products of biotechnological research are expected to have a profound effect on life in the 21st century.

Faculty, staff, and students located in many departments are involved in basic and applied areas of molecular genetics, using all the techniques of biotechnology. Our use of such techniques in biology generally, and in plant and animal biology in particular, is quite dissimilar to that of other Canadian uni-

versities, many of which emphasize medical biotechnology. This suggests an opportunity for Guelph — in undergraduate and graduate education and in research — to apply our expertise in pure and applied molecular biology in areas of strength such as agriculture and environment. Insufficient coordination among efforts in several departments has hindered our progress. The increased emphasis by major funding agencies on collaborative research proposals presents an incentive for more effective interaction; the high cost of research infrastructure (e.g., for automated DNA sequencing) poses a challenge.

All of the above factors point to the establishment of a Molecular Genetics Council. Inevitably there would be a degree of overlap in the membership of the Molecular Genetics Council with those of the Animal Biology and Plant Biology Councils. This duplication is minimized by proposing a Molecular Genetics Council, rather than an Molecular Biology and Genetics Council.

Plant Biology

- **The Plant Biology Council should continue to coordinate teaching, research, and service in plant science. The mandate should be expanded to include the realignment of relevant departments on campus, or the development of other means of enhancing collaboration in administration, research, and graduate education. The Council should extend its efforts to include collaboration with neighbouring universities. The expanded Council might be better able to seek external funding for shared capital facilities and major infrastructure.**

Guelph is the only university in Ontario with the full range of capabilities to link basic and applied teaching and research with service to the professional fields of agriculture, horticulture, forestry, recreation, and natural ecosystems management. The discovery of new knowledge and its integration with worldwide advanced research are critical to this role and to the reputation of the University in plant science.

Current structures and programs may not facilitate the full realization of the University's potential in plant biology. The Plant Biology Council has provided leadership in the recent evolution of undergraduate programs and in other cooperative efforts. These efforts might develop further if the University considered establishing a Plant Biology Institute with core members drawn from the faculty of the Departments of Botany, Crop Science, Environmental Biology, and Horticultural Science. Some faculty in Land Resource Science and Molecular Biology and Genetics would also be core members of the Institute, along with affiliated members drawn from other Guelph departments which might include Chemistry and Biochemistry, Food Science, Geography, and Landscape Architecture; from nearby universities including Waterloo, Wilfrid Laurier, and McMaster; and from federal and provincial institutions. Whatever the outcome of any reorganization, the University must continue to support the discipline of botany (as opposed, necessarily, to continuing to support a department of this name).

Rural Communities

- **The Council on Rural Communities should evaluate the merits of introducing an undergraduate major in rural development and should promote the growth of graduate education in this area.**

Strength in rural communities (and their development) is an important complement to the University's commitment to its areas of special responsibility, and its strength in life sciences and environmental sciences. Expertise in rural development exists in several departments including Rural Extension Studies, Rural Planning and Development, Geography, Sociology and Anthropology, Family Studies, and Landscape Architecture. Our collective strength in rural development, however, is relatively small, and it is widely dispersed. The Commission believes there is a need to bring more focus and coordination to this area before consideration is given to expanding our effort.

Two steps have already been taken to increase the focus and degree of collaboration. The School of Rural Planning and Development, the School of Landscape Architecture, and the Department of Rural Extension Studies have proposed a merger of the administrative components of the three units, a change that would preserve the identity of the professional programs. The recently approved PhD in Rural Studies is a collaborative effort involving several departments in different colleges. In addition, a Council on Rural Communities is currently being established. The emphasis of the Council should be on cross-college coordination.

Much of the emphasis in rural development is currently directed to graduate education. (Two units, Rural Extension Studies and Rural Planning and Development, focus their teaching efforts primarily at the graduate level). The need and financial feasibility of developing an undergraduate specialization in rural development should be carefully assessed, and considered in relation to needs at the graduate level. Several undergraduate courses are already offered with a rural development component, but it is unclear whether these courses alone could be assembled into a coherent and unique major, or whether there is the need or demand for such a major.

Toxicology

- **A Toxicology Council should be formally established, and the Council should give priority to developing a graduate program (to be appraised by the Ontario Council on Graduate Studies within five years) and to enhancing coordination with the Canadian Network of Toxicology Centres.**

Toxicology is an interdepartmental activity under the direction of a coordinator. Both undergraduate and graduate programs have been established, each of which is run by a management committee having some of the functions of a council. As part of strategic planning, faculty in this area were asked to comment on the desirability of forming a separate Toxicology Department; this was not favoured, on the grounds that the faculty involved did not wish to weaken links with their present colleagues. Recently, a group more

closely approximating a council has been established; this comprises the chairs and deans of the relevant departments and colleges, plus the Toxicology Coordinator. The Commission supports this development, as bringing the management of toxicology more into line with the management of other interdepartmental disciplines.

At the graduate level, a collaborative program has been offered since 1990; however, there have never been sufficient faculty to offer a defined set of toxicology courses at the graduate level. Many graduate students working on toxicology-related projects find no advantage in registering in the collaborative program, and remain associated with the supervisor's home department. The Commission suggests that the graduate program move, within the next five years, from a collaborative program to one that is separately appraised by the Ontario Council on Graduate Studies. In the area of research, Guelph is the national headquarters for the Canadian Network of Toxicology Centres (CNTC). While CNTC greatly increases our profile in the field of toxicology, the activities of this national research network are not well integrated with the academic programs of the University of Guelph. We have not profited to the degree we might from the presence of CNTC at Guelph, and the Toxicology Council should address this matter.

Other Areas

- **Faculty associated with existing councils in Bio-Medical Sciences and Health Sciences should re-examine the role of these Councils in light of other structural changes and either strengthen or disband the Councils. The Provost should facilitate these discussions.**

The Bio-Medical Sciences Council is principally involved with the coordination of a successful new undergraduate specialization in Bio-Medical Science. It involves the Departments of Biomedical Sciences and Human Biology and Nutritional Sciences.

The Health Sciences Council has not been active recently. Considerable strengths exist at the University of Guelph in areas related to the family, children, and old age; while these could be combined in a focus around the family, that focus would fall within the mandate of the present Department of Family Studies. The Health Sciences Council should present a case for its continuance or disband or merge with the Bio-Medical Sciences Council.

- **Consideration should be given to the creation of a council (or councils) to foster the activities of current university programs in Women's Studies, Canadian Studies, Scottish Studies, and European Studies.**

An additional emergent area that might fall under the aegis of this council is Cultural Studies. Opportunities to develop courses (perhaps in modular form) serving more than one of these interdisciplinary specializations should be explored; such courses might also be considered in relation to faculty support for initiatives in Native, Post-Colonial, and American Studies. A particular subset of these areas, and/or separate councils, might well make better sense

than the inclusion of all within a single council. Much will depend upon the extent and nature of development in these interdisciplinary areas. But a discussion bringing together representatives of each group to consider potential collaboration across groups and the utility of the council model for any, some, or all of them should be initiated by the Dean of Arts and the Dean of Social Science.

- **Discussions among ecologists and evolutionary biologists should be facilitated by the Provost to determine whether the formation of a council is viable.**

Ecology is an important element of Guelph's emphasis in life sciences and environmental sciences. Ecologists and evolutionary biologists are located in several different departments. Undergraduate programs in ecology are offered in both the BSc and BSc(Env) programs, and an emphasis in ecology exists in several graduate programs. In the late 1980s, a College of Biological Science Ecology Advisory Committee recommended the establishment of a separate Ecology Department. The Commission recognizes the importance of promoting synergy among biologists whose interests lie at the level of organization of ecology and population dynamics, but it does not favour the creation of a new department. A council is considered to be a better alternative.



G. RESOURCE ALLOCATION

1. PRINCIPLES OF RESOURCE ALLOCATION

The process of allocating resources (human, physical, and financial) among academic and all other budget units is an incomparably potent force in helping the University as a whole to pursue its vision. The process should allow units to fulfil defined functions, should provide incentives to use resources effectively, should reflect and enhance quality, and should make it possible to respond to Strategic Directions and new opportunities. It must also permit flexibility in the institution as a whole. The resource-allocation process should not be a proxy for decision-making; rather it should be a means of implementing decisions made outside of, and prior to, the resource allocation process.

A university is a large and complex community, encompassing many academic cultures and a wide range of support functions. A university also has built-in "delay times" dictated by the duration of degree programs, the pace of retirements, etc. For these reasons, the University can neither allocate its resources in a purely mechanistic way nor proceed in a purely subjective way.

The desire to maintain a climate of openness and trust demands that the resource-allocation process be rational and transparent and that there be a clear line of accountability. There are obvious advantages in making public the criteria or data associated with the resource-allocation process. First, there is a need for more explicit accountability in the use of public funds. Second, we are entering a period of intense fiscal constraint. Third, accountability by senior administrators in the allocation of scarce resources is

essential. Fourth, a clearer understanding by faculty, staff, and students of how and why funds are allocated may induce a greater sense of realism in the expenditure of these funds.

The Commission has not solved the question of the appropriate distribution of resources between academic and non-academic units. There can be no stable answer to this question; there must, however, be a shared understanding that the fundamental purpose of non-academic units is to support the academic mission of the University. Resources must be allocated with that end in view. Notwithstanding the differences between academic and non-academic units, it is proposed that a common feature of the allocation process for both areas be periodic reviews. Annual decisions on the appropriate balance between academic and non-academic units will be tied to the resource allocation process and associated reviews.

2. ALLOCATION OF RESOURCES AMONG UNITS

RECOMMENDATION # 44: The allocation of resources to academic units should not be strictly formulaic. The process, while taking due account of numerical measures, should be sufficiently flexible to allow deans and chairs to exercise appropriate judgment on the requirements of each academic unit. The allocation of resources should be based on the following elements:

(i) **rational and transparent measures of instructional effort including:**

- **undergraduate and graduate instruction, both disciplinary and interdisciplinary;**
- **activities supporting undergraduate education such as advising, coordinating semesters abroad, supervising experiential education programs, and curriculum development;**
- **participation in undergraduate and graduate courses taught outside the academic unit;**
- **activities supporting graduate education such as participation on advisory, admissions, and examination committees; and**

(ii) **quality of teaching, research, and service. (The process for establishing common indicators to assess the quality of these three elements of scholarship is described in Recommendation # 45.)**

In addition, the mechanism should permit short-term or one-time funding for programs that will allow or encourage:

- **implementation of the University's Strategic Directions;**
- **development of new opportunities; and**
- **increased efficiency in the use of resources (increased efficiency should not be a *prima facie* reason for the reduction of resources to a unit).**

ACTION: The Provost and Deans, in consultation with SCUP, should develop a plan for allocating resources to colleges and thence to

departments based on these elements and report to Senate by January, 1996.

The resource-allocation process should make explicit the instructional effort for which resources have been allocated. The issue of funding for distance education courses, for example, is addressed by the requirement that departments know how many students and/or courses they are expected to teach within the allocated budget. Similarly, the extent of expectations related to interdisciplinary teaching and University service (e.g., semester abroad coordination) should be made explicit, as a component of allocated resources.

The allocation of resources to academic units cannot be considered in isolation from issues of enrolment management. There are no general controls on enrolments in specializations. Departments currently "manage" enrolment by imposing limits on enrolment on individual courses — and the first students to be dropped (within the program or outside it) are those who do not require the course. Limits are determined by available resources, have become increasingly common, and will increase further as resources become even more constrained. The process, if allowed to continue without control, will radically undermine the benefits of study in a comprehensive university and/or make it impossible for students to graduate in a timely fashion.

There is only so much that we can do about this problem. One part of the answer is gate-keeping at the point of entry to specializations; but that, of course, leaves moot the question of where excluded students can be accommodated and the degree of choice that will be available to them. Another part of the answer is the need for departments to organize themselves in such a way that their responsibility with respect to accommodating students outside of the department (in "service courses" and through reserved space in courses that function as electives) is met; the resource-allocation process must include a measure of the University's expectations in this regard. The SPC recognizes that such expectations can be met only at the expense of curricular richness within specializations; however, an appropriate balance must be struck and cannot be left to chance or the tender mercies of departments. Automated registration procedures should make it possible for students to prioritize desired electives — thus allowing the University to make the best possible use of a limited capacity.

Beyond the allocation that supports necessary activity, departments may receive additional resources to support exceptional quality. Thus, for example, the number of positions allocated to a particular department may be sufficient to support an unusually high level of research-intensiveness or service, or a more resource-intensive style of teaching, where past performance and institutional need indicate the appropriateness of such additional support. Some additional resources may also be allocated on a short-term or one-time basis, to support new initiatives.

The resource-allocation process proposed here emphasizes the line management model (central administration → college → department). But it includes provision of resources for work carried out under the purview of councils. Councils can be effectively integrated with the resource-allocation

process when a dean functions as senior fiscal advocate, and as the person to be held fiscally accountable for a given council's activity. The chair of a council would have the same relation to the designated dean as the chair of an academic department has to a dean, in terms of advising on the allocation of resources.

The resource-allocation process must also take into account existing levels of support (e.g., numbers of faculty and operating funds). Given our budgetary commitment to permanent positions, it is simply not possible to adjust budgets as quickly as we might wish. The ratios of instructional effort to existing levels of support could, however, be related to norms that vary across "cultures" in the institution; departments with ratios falling outside of a pre-defined corridor around the norm would have their budgets adjusted over time and/or change their instructional effort.

RECOMMENDATION # 45: The Provost, in conjunction with Academic Council, should develop by December 1995 a set of common indicators to be used to assess annually the quality of scholarship (teaching, research, and service) of departments; in addition, each department will be involved in the development of indicators to be used in its own assessment. It is expected that some indicators would involve national and international comparisons.

These common indicators and collection of supporting data will be used primarily for the purpose of measuring the quality of departments on an annual basis. Such annual assessments will form one component of the resource-allocation process outlined in Recommendation # 44.

RECOMMENDATION # 46: Academic departments should undergo a comprehensive review (internal self-assessment and in-depth external appraisal) every seven years, in conjunction with reviews of graduate programs wherever possible, and a standing committee should be established to advise the Provost and the Senate Committee on University Planning on an appropriate institutional response to this comprehensive review.

The primary purpose of the comprehensive review process is to provide each department with information needed for purposes of periodic re-evaluation and improvement. The proposed standing committee should be struck by the Provost, with the advice of Senate; its five to seven members will consist of respected faculty who do not hold administrative appointments, and one or two students, at least one of whom should be a graduate student. The task of this committee will be to examine the functioning and goals of the department and make recommendations to the Provost concerning issues arising from the review. The committee must assess quality in relation to available resources. Recommendations for change must be made within the context of needs and opportunities facing the University. It will be the responsibility of the dean and Provost to address any problem — such as poor management of resources — that

is not related to level of the resources provided. Any suggested structural changes resulting from the comprehensive review should be examined by SCUP.

RECOMMENDATION #47: Annual reviews and comprehensive reviews (every seven years) should become part of the resource-allocation process for all non-academic units, and the Provost and Vice-President Finance and Administration should develop the review process by December 1995, informing units of the criteria to be used for evaluation. These will be based in part on external comparisons and will involve evaluation by those who use the service.

The review process for non-academic units should be regular, rather than precipitated on an irregular basis, and should follow well-defined criteria for assessment; should inspire trust, avoid false expectations, and enhance collaboration between units that participate in the same function; should identify ways of offering a better or more efficient service and of creating a better working environment for those offering the service; and should assess the claim of the function to scarce financial resources.

Factors to be taken into account in the review process may vary with the function being reviewed and will need to be defined in consultation with units serving that function, before the process begins. The following factors should be considered in all reviews:

- current goals and workplans, in relation to the mission of the University and relevant trends or forces originating from inside or outside the University;
- demand for services and critical cost/benefit analysis of service; high demand for a service does not imply affordability, and low demand does not imply that the service is unimportant;
- evaluations by users of services and response of unit to evaluations;
- strengths/ weaknesses of unit;
- opportunities for similar services to be provided off-campus;
- linkages to academic and research programs and the needs of these programs;
- income/expenditure/level of service in relation to units performing a similar function in other universities considered to be performing this function in an exemplary manner.

Each unit should review itself annually according to a prescribed set of factors and outline its work plan for the following year in conjunction with any other units participating in the same function. The work plan of the unit should be linked with the individual work plans of members of the unit. Reports should move through to the relevant vice-president, and then to the Provost and President. Senior administrators should be involved in approving, rejecting, or proposing modifications to work plans and recommendations arising from the review.

Each function should undergo a comprehensive review every seven years by

a review team whose membership includes external consultants, the Vice-President Administration (or designate), a dean, and members of the University — external to the units being reviewed — who utilize the service. A draft copy of the report of the review team should be provided to the unit on a confidential basis for comment before the final copy is prepared and is forwarded to the Provost and President.

H. RECONFIGURING THE UNIVERSITY

The work of reconfiguration is aimed at getting better and at optimizing the distribution (as well as increasing the sum) of our resources. Given both a pervasive drive to excel and existing financial limitations, the work of reconfiguration will be challenging in the extreme — and it will clearly be impossible to satisfy every laudable ambition. Nevertheless, we are convinced that the sum of our ongoing decisions and efforts CAN result in a strengthening of the University overall. The discussion that follows relates to money; the improvements we are calling for, however, as well as the excellence we wish to preserve, are not at the most fundamental level capable of purchase. They depend most essentially on the determination and vision of our people; and the future well-being of the University will depend on that determination and vision being manifest both locally (in the work of individuals and units) and collectively. That being said and meant, the obdurate fact of constrained resources remains to be addressed.

The Commission has not recommended the elimination of any academic program or department. It has, however, recommended a review and resource-allocation process through which we will examine the needs and viability of each academic unit, ensuring that each is funded at a level that makes optimal sense within the context of the whole. One critical dimension of this process is an assessment of faculty workload (including teaching, research, and service), followed by an adjustment of resources or workload to achieve equity overall. This will address two important questions: Is each unit doing its fair share of the University's work? Is the work important/necessary to the University?

One crucial question remains. Can this work be accomplished more efficiently another way? This question must be fed into the process of review and resource allocation. (Thus, for example, resources may be provided for the short term to achieve efficiencies that will ultimately reduce the unit's costs.) The Learning and Research Enhancement Funds will also be critical in this regard. But several other processes, essential features of the Strategic Plan, come into play at this point, and must be reflected in the resource-allocation process: the review of courses and specializations, and the work of councils. By these means we will increase efficiency within and across units. Changes in our existing departmental (or college) structure will occur as it becomes clear that the necessary work of some units can be carried out

more efficiently and/or more effectively through reconfiguration. Essentially the same set of questions would apply to non-academic units as well. When all of these questions have been answered, and adjustments made, we will have achieved optimal use of our resources.

The University must enhance budget flexibility by holding fixed costs (primarily associated with permanent faculty and staff positions) to an optimal level and by identifying new sources of income. Such flexibility is vital both for the immediate future — in which some venture funds, short-term or one-time money, must be found to begin investment in changes called for by the Strategic Plan — and for the long term. Although we cannot hope for any substantial budgetary flexibility until the SERP debt is repaid, we must use whatever money we can find to begin the task of change. The Commission recognizes that entrepreneurial activity entails both an initial outlay of resources and a considerable element of risk; fund-raising activities also require an investment of funds. What we envision is a period prior to the repayment of the SERP debt in which small amounts of money for strategic investment will be identified with great difficulty, followed by a period of more substantial investment.

RECOMMENDATION # 48: Funding from all vacated faculty positions (except those resulting from negative tenure decisions) and staff positions should revert centrally (President and Provost) to facilitate reallocation of resources and enhance budget flexibility.

Historically the University has changed its conformation through the allocation of new resources to support new opportunities. In an era of declining resources this approach is no longer tenable. Instead, *reallocation* of existing resources must be our primary means of supporting new initiatives or strengthening existing areas. With most of our budget tied to personnel costs, the recommendation above is essential if we are to reconfigure our institution.

RECOMMENDATION # 49: Commitments to fill faculty positions on a permanent basis must not be made, except in the most extreme cases, until the resource-allocation process has been developed and implemented, and criteria for the continuation of specializations and courses have been accepted and applied.

ACTION: President

RECOMMENDATION # 50: To support initiatives called for in the Strategic Plan, the University must aggressively pursue alternative sources of funding, embarking soon on a major fund-raising campaign, and taking advantage of opportunities to enhance revenue that are consistent with our academic mission. To attract donor funds and entrepreneurial partnerships, we should make a greater effort to publicize and promote both the strengths of the University and its Strategic Vision.

ACTION: President

The force of this recommendation should be obvious to all; its implemen-

tation will require the assistance of all members of the University community.

I. PRIORITIES

The Strategic Plan has assigned to the community what may appear an alarming number of important tasks to be carried out over the next few years. While individuals in central administration and groups such as the Board of Undergraduate Studies are often made accountable for the completion of these tasks, the real work involved must, of course, be distributed widely. The Commission has understood from the beginning that the work of strategic planning will enter its most critical stage at the moment when the Commission itself dissolves. The first requirement, of course, is the need to make decisions on the recommendations, beginning with the proposed mission statement and strategic directions. Then unit plans will have to be crafted, studies completed, processes developed, and initiatives begun. The demands made on the time of all members of the community will be considerable, but if we share the work appropriately — and if we approach it with some excitement, and a determination not to waste time — we can get it done.

1. ENHANCING FLEXIBILITY AND EFFICIENCY

This set of inter-related recommendations is our highest priority. In the first year, our task will be (a) to carve work out of the system, making room for more effective work in the future, and (b) to establish procedures for the reallocation of resources. We must proceed immediately with the reduction of course offerings (39), the reform of the semester system which facilitates such reduction (34, 35), the reduction of specializations (38), the credit system (36), and the resource-allocation and review processes (44, 45, 46, 47). We should move immediately to streamline governance and committee structures (15) and to achieve more equitable workloads for faculty (13). Also in the first year we must begin to determine efficiencies that can result from greater cooperation across departments (42, 43). Decisions related to the reversion of positions (48) and strict limitations on hiring (49) will have to be made at once. Work to increase our resource base (50) will be an ongoing challenge, while planning for the capital campaign should begin as soon as possible. Efforts to increase collaboration (24, 25) must begin in the first year, but will be accelerated in the years ahead.

2. STRATEGIC INITIATIVES

In the first year, our energies should be directed primarily to planning at the local level, completing a number of important studies, and assessing costs. Thereafter, and as resources can be redirected, we will begin to pursue these initiatives. The information technology (32) and space (33) studies, as well as the development

of a plan for improved counselling (30), must be completed within the first year; the critical recommendation related to the library (31) involves continuing effort. The work of faculty, departments, and program committees in revising curricula and implementing the learner-centred agenda (40) will be ongoing. The creation of a task force to develop the inquiry course (17) and of the Experiential Education Advisory Group (20), targets for study abroad (26), and the development of a common set of questions for the evaluation of teaching (21) should occur within the first year; the creation of a plan to enhance language instruction (28), as well as work on designated writing courses (18) and prior learning assessment (37), can, if necessary, be undertaken in the following year.

3. EMPOWERING OUR PEOPLE

In the first year, we must develop the Human Resources Management Philosophy (5), reach out to alumni (14), and develop University-wide standards for tenure, promotion, and selective increment (9). Recommendations related to professional development and performance review (6, 7, 8,) should be acted on as speedily as possible.

NOTE: The previous discussion does not address all of the Commission's recommendations; it merely attempts to establish some priorities within the clusters identified.

J. ACCOUNTABILITY

The Strategic Plan has particular relevance to the concept of accountability. A university must be ac-

countable to the public at large, to the community it serves, and to its internal constituencies. The Report of the Task Force on University Accountability (the Broadhurst Report) emphasizes that "Each university should be held accountable primarily by reference to how it fulfils the mission it has determined for itself within the broad objectives of public policy." The development of a strategic plan is thus an essential prerequisite for an accountability framework. Further, the Broadhurst report characterizes a proper system of accountability as involving broad consultation and a framework and processes that are readily understandable, open, and accessible. In the development of *Making Change: The Strategic Plan for the University of Guelph*, we have attempted to be faithful to these precepts.

The Broadhurst Report identifies 16 main issues of accountability, 13 of which are the responsibility of the Board of Governors. Those that relate to the Strategic Plan are as follows:

- to assess progress towards the fulfilment of the institution's mission;
- to assess admissions policies and practices;
- to monitor academic program reviews undertaken by the Senate, the Provost's Office, or outside bodies;
- to monitor the application of policies covering terms and conditions of academic appointments.

These, and other, elements of accountability are as important to faculty, staff, students, and alumni as they are to the external community. It will be essential that we communicate our progress toward the desired outcomes of the ongoing strategic-planning effort.

RECOMMENDATION # 51: Progress reports on implementing the Strategic Plan should be issued regularly to Senate by the appropriate committee or individual, and to the Board of Governors by the appropriate Vice-President, docu-

menting decisions that have been made, the persons (or offices) responsible for implementing the decisions, the date or period of implementation, and measurements of progress using well-defined indicators. An annual progress report should be presented by the President and widely distributed on and off campus.

RECOMMENDATION # 52: Working with appropriate committees and units, the Senate Committee on University Planning should oversee the development of indicators to measure progress on major decisions that arise from Strategic Planning.

The primary purpose of developing and using these indicators will be to improve institutional quality and internal accountability. An additional purpose is to provide the Board of Governors with evidence of our success in meeting the objectives emerging from the Strategic Plan. Serious consideration should be given to measuring levels of competence (or "value added") in the skills we intend to foster through a more learner-centred approach to education. Exit surveys and employer surveys should also be explored. A proposed set of indicators should be brought to Senate for approval within six months of decisions having been made on SPC's recommendations.

It may be appropriate, in some cases, to compare measurements at Guelph to similar measurements at other universities. Information on indicators should also be made available to external constituencies. This would help the University to communicate its mission, and demonstrate its commitment to both accountability and continuous improvement. The indicators should be strongly contextual, as opposed to an absolute or comparative use of numbers. Indicators must not result in just another reporting requirement. They must be part of ongoing self-assessment by the University. The role of senior academic leadership,

as well as a measure of consensus within the community on the indicators selected, will be critical. The following criteria have been suggested by the Council of Ontario Universities' Committee on Accountability:

- relevance (does the indicator demonstrate what it is purported to?);
- reliability (is the indicator based on statistics that can be assembled consistently and accurately?);
- accessibility (can the indicator be measured on a regular, consistent basis and at reasonable cost?);
- clarity (is the indicator readily understandable?).

RECOMMENDATION # 53: A "change auditor" should be designated for a limited period to promote and monitor the change process occasioned by Strategic Planning.

ACTION: President

The intent here is primarily to ensure that someone is keeping track of ongoing discussions, of our overall progress, and of communications regarding that progress. Regular progress reports will not suffice. Careful monitoring by a designated person or office will be required for the immediate future, to maintain momentum and keep senior administrators and the community at large adequately informed. The President's support and active championing of approved recommendations will be critical to their implementation.

RECOMMENDATION # 54: A comprehensive analysis should be carried out in 1999/2000 to assess the impact of the current strategic-planning exercise.

ACTION: Senate Committee on University Planning.

Thank you

Many people inside and outside the University contributed to the Strategic Planning process. These include the more than 200 members of the Commission, its task forces and committees, and a much larger number who responded to reports issued under the auspices of the Commission. These commentaries have been an invaluable resource and played a significant role in framing the Commission's final report. Many excellent ideas that could not be incorporated into the final report were generated during the Strategic Planning process. A considerable number of these ideas are documented in task force and committee reports that were distributed to the community. These reports will represent a valuable resource, particularly as planning evolves to a local or operational level. The commission gratefully acknowledges the support of all those individuals who contributed to this process.

Strategic Planning Commission

The Strategic Planning Commission was created by President Mordechai Rozanski in November, 1993. The Commission was charged with developing recommendations regarding the mission and future directions of the University over the next decade with a view to ensuring academic quality and institutional vitality in the face of changing fiscal realities.

Andre Auger
John Barta (from July '94)
Derek Bewley (from July '94)
Gerrit Bos
Diane Boyd
Tammy Bray (until July '94)
Nigel Bunce
Iain Campbell (until Apr. '94)
Donald Cockburn (from Apr. '94)
Doug Dodds
Hugh Earl (from Aug. '94)
Brian Eam (until June '94)
Fred Evers (from July '94)
Madie F  r  re

Pat Gentry
Robin Hicks (until Aug. '94)
Stewart Hilts (until June '94)
Michael Hoy
Derek Jamieson
David Josephy
Bev Kay (Chair)
Michael Keefer
John Leatherland
Theresa Lim
Jack MacDonald (from Apr. '94)
Colin Marsh
Wayne Marsh
Murray McEwen

Bryan McKersie
John Miles
Chris Parent (until Apr. '94)
George Penfold (from July '94)
John Roff
Connie Rooke (Associate Chair)
Garry Round
Mordechai Rozanski
Trish Walker
Yolanda Wiersma (from Nov. '94)
Donna Woolcott

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