



The Alliance of Sector Councils (TASC)

University/Sector Council Partnership

*Building the Skilled Workforce
that Canada Needs*



Funded by the Government of Canada's Sector Council Program



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Building the Skilled Workforce that Canada Needs

This project seeks to build a stronger working relationship between industry and universities with the objectives of:

- *working towards a university curriculum that reflects industry needs;*
- *raising awareness among students about university programs relevant to career prospects in various sectors; and*
- *facilitating research projects to be jointly undertaken by universities and sector councils.*

*Prepared by R.A. Malatest & Associates Ltd. for
The Alliance of Sector Councils*

Executive Summary

In the Fall of 2007, The Alliance of Sector Councils (TASC) commissioned R.A. Malatest & Associates Ltd. to complete research related to describing the current relationships between Canadian sector councils and universities, as well as research/strategies designed to enhance such relationships.

This environmental scan report and strategic plan outlines the Consultant's findings and recommendations based on feedback from an e-mail survey, key informant interviews, presentations and the review of additional resources on the subject of university–sector council partnerships.

The goal of this research was to develop a plan for how such sector council—university relationships can be successfully established in the future for the purpose of:

- **working towards a university curriculum that reflects industry needs;**
- **raising awareness among students about university programs relevant to career prospects in various sectors; and**
- **facilitating research projects to be jointly undertaken by universities and sector councils.**

Nearly all sector councils (93%) expressed an interest in developing university–sector council partnerships in the future. Despite this, only 50% of sector councils have had a relationship with universities in some capacity.

A key finding of the research is that nearly all sector councils that participated in the study felt that there was merit in terms of establishing/enhancing relationships between their council and Canadian universities. Notwithstanding this high level of interest/support for such relationships, only one-half (50%) of sector councils reported that they had established a relationship(s) with the university sector. Sector council representatives cited several barriers that limited interaction/relationships with universities, including lack of awareness of the sector council program among Canadian university staff (both at the system level and among faculties/departments), as well as the limited resources among sector councils (i.e. time, money, staff availability) that preclude the cultivation of relationships with the universities.

Among those interviewed, it was felt that the role of The Alliance of Sector Councils (TASC) should be to facilitate the development of university—sector council relationships by laying the groundwork for future relationships, not to actually develop the relationships themselves.

TASC can serve an important role in strengthening awareness of sector councils among universities and identifying which departments/faculties would be of interest across universities. TASC can also help its members by providing ways for them to share best practices, relevant personal contacts, research, and other pertinent information.

Sector council representatives noted that it would be important for each sector council to develop direct relationships with the university, as these personal relationships were seen as important for the respective sector council(s).

While macro-level solutions could be used to help put interested parties in contact with one another, relationships must be developed on an individual level.

While forums such as national or regional department/faculty meetings with appropriate sector councils may help introduce key players to each other, relationships must be built between individual sector councils and academic groups, as interests and needs vary widely between sector councils and departments/faculties.

Universities contain non-academic units that can present valuable partnership opportunities.

While partnerships with various departments/faculties can be of great benefit, partnering with non-academic units at universities such as career centres can create a direct link between employers and university students.

Relationships between sector councils and universities will be further developed to help to address the growing skills shortages in many sectors of the Canadian economy. This will be done through relationships that help universities to develop curriculum, research and learning outcomes that are reflective of employer and labour market needs.

TASC is seen as playing a key role in facilitating the achievement of these goals, but sector councils, universities and other stakeholders each have roles to play. The document outlines specific proposed activities, roles, and timelines to meet these goals.

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1 INTRODUCTION

R.A. Malatest and Associates Ltd. conducted a series of surveys and interviews with stakeholders from sector councils, universities, and associations in order to examine what can be done to strengthen the relationship between sector councils and universities across Canada. This report presents a description of the methodology undertaken for the environmental scan, provides a summary of the results of the research, and outlines a strategic plan for The Alliance of Sector Councils (TASC) in terms of strengthening and/or enhancing such relationships.

1.1 Project Background

Many industry sectors represented by sector councils and sector-like organizations are facing a growing skills shortage. In collaboration with the coordinating body TASC, they are looking to collaborate with post-secondary educational institutions to address this human resource issue.

TASC and its members have successfully worked to develop relationships with colleges and the college system, including through collaboration with the Association of Canadian Community Colleges (ACCC). The same degree of overall collaboration has not yet been developed with universities and the university system, however. While some sector councils have individually developed relationships with universities, the extent and nature of these relationships, current gaps and needs, and what role TASC can take in the future in this area, has not been widely known. There is a general consensus that a strengthened partnership between the universities and sector councils will yield benefits to both groups. Universities will

become more aware of labour market requirements and training needs, and sector councils will more cognizant of current/planned changes in enrollment, graduation and expansion of key programs across the Canadian university sector.

In summary the central goals of this project are to:

- work towards a university curriculum that reflects industry needs;
- raise awareness among students about university programs relevant to career prospects in various sectors; and
- facilitate research projects to be jointly undertaken by universities and sector councils.

1.2 Purpose of this Report

This report illustrates the findings to date for the *University—Sector Council Partnership Research Project*. The report is intended to be useful in:

- identifying the relationships that currently exist between sector councils and universities;
- identifying the faculties/universities most relevant to sector councils; and
- developing a strategic plan for TASC with respect to how TASC can better support an effective relationship between sector councils and universities.

2

RESEARCH APPROACH

The following section outlines the research approach that was undertaken for the project.

2.1 Research Approach

As part of the environmental scan, R.A. Malatest & Associates Ltd. distributed an e-mail survey to sector councils, conducted key informant interviews with sector council, university and related association representatives, and identified potential universities and faculties of interest to sector councils.

2.1.1 E-mail Survey

The Consultant sent out 44 e-mail survey questionnaires to representatives from 40 different sector councils and related organizations on August 7, 2007. A follow-up e-mail was sent one week later. Three rounds of follow-up calls were made to survey non-respondents: one on August 20, one on August 27, and one on September 25. In total, 28 questionnaires were completed (representing 70% of potential organizations).

The e-mail survey asked twelve questions about university partnerships to date, potential university partnerships of interest, and current or past college/other institutional partnerships.

2.1.2 Sector Council Key Informant Interviews

On August 17, 2007 the Consultant commenced key informant interviews with relevant sector councils and related organizations or associations. These included those sector councils which had indicated having extensively partnered with universities:

- Environmental Careers Organization of Canada;
- Canadian Supply Chain Sector Council;
- Information & Communications Technology Council; and
- BioTalent Canada.

In total, 13 interviews were conducted. In addition to the four sector councils listed above, representatives from the following organizations were interviewed:

- Canadian Food Industry Council;
- Child Care Human Resources Sector Council;
- Engineers Canada;
- HR Council for the Voluntary & Non-profit Sector;
- National Seafood Sector Council;
- Motor Carrier Passenger Council of Canada;
- Petroleum Human Resources Council of Canada;
- Canadian Steel Trade and Employment Congress (CSTEC); and
- Association of Canadian Community Colleges.

These interviews explored the details of past partnerships with universities, future plans to develop relationships with universities, relationships with colleges, and the possible future role(s) of TASC with regards to the development of university—sector council partnerships.

2.1.3 University Key Informant Interviews

R.A. Malatest & Associates Ltd. began conducting key informant interviews with university representatives on September 13, 2007. Points of contact were identified through the sector council key informant interviews. To date, six interviews have been completed. The Consultant has spoken to representatives from the following universities:

- University of Ottawa;
- University of Calgary;
- Ryerson University;
- University of Toronto;
- Wilfrid Laurier University; and
- University of Guelph.

The respondents represent the following areas within their institutions:

- School of Management (University of Ottawa);
- Institute for Sustainable Energy, Environment and Economy (University of Calgary);
- School of Hospitality and Tourism Management (Ryerson);
- Career Centre (University of Toronto);
- Career Services, School of Business (Wilfrid Laurier); and
- Office of Open Learning (University of Guelph).

These key informant interviews examined past partnerships with employers/industry/industry associations or sector councils, future plans of the university to develop relationships, and the possible future role(s) of TASC in this process.

In addition to these interviews, the Consultant undertook exploratory interviews with representatives from the following organizations to discuss potential future relationships with sector councils and/or TASC:

- Association of Universities and Colleges of Canada (AUCC); and
- Canadian Association of Career Educators and Employers (CACEE).

2.1.4 Identification of Faculties and Universities of Interest

The Consultant undertook research to identify those faculties and universities most relevant to sector councils. This research involved an examination of the responses provided in the e-mail survey to sector council representatives, as well as key informant-provided perspectives on potential or current universities or faculties of interest to sector councils. The Consultant built on the survey- and interview-supplied information by identifying all relevant university faculties or universities relevant to each of the sector councils through the review of on-line sources and, where necessary, telephone calls. The results are compiled in comprehensive inventory tables located in Appendix A of this report.

2.1.5 Presentation of Preliminary Results

The preliminary findings of the research were presented at a meeting of the TASC Working Group on Post-Secondary Education on September 10. They were also presented at the General Meeting of the TASC Members held in Vancouver on September 27, where the results were discussed with those present. Finally, the preliminary Strategic Plan was presented to members of Sector Councils, universities, and university organizations for their input. The Strategic Plan included in this document was developed based on feedback from these presentations.

3

AVAILABLE INFORMATION AND DATA

The following section provides a summary of the information identified in the environmental scan. It discusses university partnerships to date, how partnerships developed, and future directions for partnerships. It also briefly summarizes the major faculties/universities of interest, outlined in greater detail in Appendix A.

3.1 University Partnerships to Date

Fourteen of the 28 (50%) sector councils/organizations that responded to the e-mail survey indicated that they have had a past relationship in some capacity with universities.

Most of these have forged partnerships or collaboration with specific faculties at a few key universities, although some organizations (e.g. Information and Communications Technology Council (ICTC), Forum for International Trade Training (FITT), ECO Canada) have relationships with many universities. One sector council-like organization, Engineers Canada, is involved in the accreditation of relevant programs, and so has a necessary relationship with all universities across Canada offering engineering programs. The Textiles Human Resources Council has developed a series of relationships with universities in the US, UK, and Australia, given the absence of textiles manufacturing training in Canadian post-secondary institutions.

A few sector councils have developed relationships with related organizations, including national councils of deans of particular faculties, related national associations of specific types of educators, and other networks. For example, the ICTC has developed a relationship with the Association of Deans of Computer Science and has an affinity group of deans of ICTC in Ontario. The Environmental Careers Organization (ECO) Canada partners with the Environmental Studies Association of Canada and has also set up affinity groups with universities. In addition, the Cultural Human Resources Council has worked with the Canadian Association of Arts Administration Educators, and Engineers Canada has worked with the National Council of Deans of Engineering and Applied Science.

There appear to be two types of sector council–university relationships that are developing:

- those that are largely project-based, and focused on specific tasks or objectives; and

- those that develop for goals of long-term collaboration.

These types of relationships can be overlapping, however.

Project-based collaboration between sector councils and universities has resulted in the following types of activities:

- **sector councils' development of specific curriculum, courses:** one example is a partnership developed between ECO Canada and Royal Roads University to develop an online post-graduate certificate in Environment;
- **occupational standards:** this has included sector councils accrediting post-secondary programs (as is done by FITT and which ECO Canada, for example, is now working on through its National Environmental Accreditation Program) or practitioners (which, for example, ECO Canada has been involved in through the Canadian Environment Certification Approvals Board);
- **co-development of other educational strategies:** for example, the Council for Automotive Human Resources has undertaken consultations regarding university-level training for industry through a Technical Education Committee;
- marketing projects (to publicize the available educational programs in a field);
- sector council participation in career fairs at universities; and
- academics/universities advising on, or leading, specific human resources studies for sector councils (e.g. sector studies, survey projects).

The results of long-term collaboration have included:

- sector councils participating with academics/universities on industry-training advisory boards, steering committees, affinity groups;
- databases of university programs on sector council websites;
- co-development of discussion forums with industry;
- academics participating on sector council boards;
- sector councils providing ongoing assistance with university curriculum development;
- accreditation of education/training programs; and
- certification of foreign workers.

3.2 How Partnerships Develop

The relationships that have been established have been initiated by both sector councils and universities. They have come about in a variety of ways, including through:

- sector councils' communications strategies (e.g. attending career fairs at universities);
- networking and referrals (e.g. the Canadian Federation of Independent Grocers referred a university representative to the CFIC);
- establishment of affinity groups;
- sector councils' contact with deans/chairs of faculties;
- contact through TASC;
- 'inheritance' (i.e., of a project, of a relationship as a result of people moving from one job to another); and
- members' personal relationships with specific academics.

3.2.1 Potential Forums for Developing Relationships

Sector councils and university representatives were asked to provide their perspectives on whether relationships would be best developed through forums that were national or regional.

There was no consensus on whether the forums for developing relationships should take on a regional or national scope. National forums, such as national department/faculty meetings with appropriate sector councils, were said by some sector councils to have their advantages, as they offer a more comprehensive perspective, and would involve planning only one forum (rather than a series of regional forums).

However, a national forum may be more difficult to develop and manage than regional forums like regional department/faculty meetings with appropriate sector councils. The type of forum that would be best would largely depend on the size of the industry, the number of faculties/departments of relevance, and the particular regional industry needs and scope. For example, the Canadian Steel Trades and Employment Congress (CSTEC) indicated regional meetings would likely be more appropriate for its needs because of the largely regional nature of the steel industry.

There was also little consensus on whether sector councils should be involved on an individual level or as a group in these forums. Some felt that the needs of the various sectors vary too much to move forward at a group level. Similarly, it was felt that since relationships must be developed on an individual basis, meeting as a group would be less useful. Others felt that perhaps it would be useful to bring together

those sector councils with an interest in a certain type of department/faculty to speak to representatives of the relevant departments/faculties across various universities. For example, all sector councils with an interest in developing relationships with representatives of management programs could speak to the deans of the various faculties/departments of management.

One aspect there seemed to be some agreement on was that the relationships with universities would need to be focused on representatives of specific faculties/departments (e.g. engineering, business, etc.) across multiple universities. It is widely felt that university Presidents are too removed from industry-relevant work, and that a university-wide scope is also too overarching—sectors are interested in particular departments/faculties, and not the whole university as an institution. Nevertheless, relationships are, by necessity, built through personal relationships, and the more venues for contact with universities, the better. Therefore, meetings with deans or heads of faculties, for example, are a possible forum for beginning to develop relationships with academics within those faculties.

Notwithstanding that sector councils see their operational point of contact to be at the dean or department head level, there was some discussion that there needs to be communication at the corporate level (i.e. university president, vice presidents, etc.) that would provide senior management with an understanding of the sector council program as well as help ensure that sector management was aware of the possible relationships that would be pursued at the faculty/departmental level(s).

Additionally, one non-academic unit of universities that has been overlooked is the career centres, which could serve as an important point of contact to help to market industries to students. These centres are represented through the Canadian Association of Career Educators and Employers (CACEE). This body holds national meetings annually, and also has regional chapters for the Atlantic region, Quebec, Ontario, and Western Canada, all of which organize their own meetings and events.

Other potential forums include national associations/councils of deans of specific faculties. It may be possible to link a sector council or related organization to annual meetings of deans of faculties, to "piggy-back" on existing opportunities. Indeed, relationships have been developed among some sector councils with these bodies.

One key point that was consistently raised is that any forum must have a clear goal and a clear idea of what it wants to accomplish, otherwise it risks being ineffective and/or alienating universities from sector councils.

3.2.2 Best Practices in Building or Sustaining Relationships

Relationships must have clear, understood benefits for universities, and this must be communicated to them. Benefits can include:

- co-developing research projects;
- providing data on, for example, future labour demands (to assist in planning number of seats in specific programs, etc.); and
- assistance with curriculum development.

Other related points that were raised in interviews with both sector councils and universities included:

- all parties should be open to change and demonstrate flexibility;
- relationships should be viewed as ongoing (long-term) and true partnerships;
- there should be an emphasis on professional career needs; and
- it should be kept in mind that parties have a common goal, but also different interests and needs.

3.2.3 Challenges to Establishing Partnerships

About one-half of those sector councils without any past relationships with universities have considered them in the past. For their part, the universities have expressed an interest in developing further/more extensive relationships with sector councils. However, there are several challenges to developing partnerships that both parties have identified.

The most common reasons sector councils have not been involved in relationships with universities are:

- universities' lack of major relevance to the sector (i.e., the sector largely consists of graduates of colleges or trades programs and, only secondarily those from university programs);
- some sector councils are still fairly new and need more time to begin to develop these relationships;
- lack of resources, including related to time, money, or staff. There are a large number of universities, and sector councils only have a limited number of staff and amount of time and money to develop relationships. This is especially difficult given the relationships must often start from scratch.

Other reasons identified include a lack of demonstrated interest from universities, and no significant labour shortages in areas of the workforce where there are university-educated workers (e.g. engineers, accountants).

Universities have identified the following challenges of relationships (both existing or potential):

- lack of awareness of sector councils: some don't know about sector councils and/or don't understand the role they could play and the potential benefits of working with them, whereas others simply don't know who to contact;
- lack of available resources for partnership activities; and
- perception that sector councils focus on trades and not on professional careers (i.e., university-level degree programs and training).

Other challenges that can arise stem from:

- continuity of personal relationships—including that faculty and/or departmental heads have limited tenures in their role, meaning that relationships with individual faculties have to be continually renewed; and
- differences in perspectives between the academic world and industry. This can include, for example, getting industry to undertake long-term planning, and getting universities to work more with the day-to-day reality of the industry.

A major barrier identified by many sector councils is the lack of a university-related organization that is an equivalent to the role that the ACCC fills for colleges. Given the large number of universities, some feel that the existence of some sort of umbrella organization would help facilitate the process by simply identifying interested parties (i.e. university departments/faculties) to “bring to the table”.

For their part, some university representatives (including career centre staff) also indicated a lack of awareness of sector councils, and difficulty determining who to contact. They also suggested that TASC could facilitate the process by identifying two things:

- which industries have related sector councils; and
- which faculties each sector council wants to be involved with.

It was generally felt that having this information would help to streamline the process and save resources (e.g. time, money) potentially wasted contacting uninterested parties. The understanding exists that the later stages of the process (i.e. the development of the relationships) would be left to the individual parties.

3.3 Future Directions

Almost all sector councils (93%) indicated that they would be interested in relationships with universities in the future. Only two respondents (7%) stated that they would not be interested in relationships with universities in the future. All university stakeholders expressed an interest in developing relationships with sector councils in the future.

3.3.1 Types of Roles of Interest in the Future

Interview respondents were asked what types of future activities/roles should be jointly developed by sector councils and universities. The most frequently mentioned types of potential roles included:

- co-developing on curriculum development;
- research projects (e.g. supply-side projections for human resource planning, future trends, plans to expand enrolment, supplying students to help with research);
- marketing and building awareness of the sector (working together to build supply, promoting awareness to potential students, linking students with the industry's employers);
- accreditation of training;
- teacher certification;
- regular forums, advisory roles (sector councils advise on industry needs, could work to ensure that universities get the research that they undertake); and
- participation in career events, conferences, or industry panels.

3.3.2 Potential Roles for TASC

There is a near consensus that the primary, or at least initial, role of TASC should be building awareness of sector councils among universities. There was felt to be a very low level of understanding of the potential role of the sector councils in the university world. The potential benefits of sector council and university relationships (e.g. statistical exchanges, co-op placement services, a national job bank, etc.) should be showcased by TASC. Suggestions made by sector council and university representatives for potential future directions for TASC included:

- undertaking a cross-country circuit to publicize the sector councils among university faculty/department heads and others such as career centre staff (e.g. to explain which industries have sector councils, to change the image of sector councils as only representing “blue collar” professions);

- working through the AUCC to get the word out to university Presidents and others about sector councils;
- developing additional promotional materials that can be used by sector councils to explain their roles and potential relationship(s) with universities (e.g. brochures, Frequently Asked Questions (FAQs), online materials);
- identifying who needs to contact who: one university stakeholder said there was a barrier for universities in that they don't know what sector councils are or which ones to contact (“It is possible to waste a lot of time contacting the wrong sector councils.”); another university stakeholder even indicated that they would not play a proactive role in partnering with sector councils, and would only work with them if approached by them to do so.

It was felt that this initial role could then be followed by future roles such as:

- sharing best practices between sector councils on protocols that sector councils can use to help to develop relationships with universities (e.g. online database of types of relationships, case study examples, how to develop programs);
- providing ways for sector councils to share relevant personal contacts with other sector councils that want an “in” to specific faculties/departments; and
- helping coordinate research and data collection across sector council projects—for example, TASC could work with university/institutional researchers to coordinate data gathering rather than each sector council research project working individually to get the data it needs on things such as enrolments.

It was nearly universally felt that TASC should not play the major role in developing the relationships between sector councils and university representatives—that is, once interested parties have been identified and brought together, relationships should be developed individually between each sector council and academic organization.

While TASC was not seen to be a viable agent to support bilateral university-sector council relationships in the short term, it was noted that in the longer term, TASC could explore whether there would be a role to organize national/related forums between universities and sector councils for areas in which both shared common interests (i.e. joint conference including sector councils related to manufacturing and universities, joint council between university departments associated with resource extraction and sector councils associated with primary industries, etc.).

3.4 Faculties/Universities of Interest

In the sector council survey, the most commonly selected faculties of interest to sector councils included:

- Business (10 sector councils);
- Engineering, science, and technology (9 sector councils);
- Environmental studies (3 sector councils); and
- Economics and social sciences (3 sector councils).

Previous sector studies undertaken by R.A. Malatest & Associates have concluded that management skills are often underdeveloped in many industry sectors. This is particularly true in industries in which managers often have trades-related backgrounds. There may be an opportunity to link industry to management faculties to develop those skills.

Identified faculties/universities of interest are further outlined in *Appendix A*. The following table provides an overview of the appendix.

Overview of Faculties/Universities of Particular Interest to Sector Councils (See Appendix A)

UNIVERSITY FACULTY AREA	ESTIMATED NUMBER OF INTERESTED SECTOR COUNCILS	APPROXIMATE NUMBER OF UNIVERSITIES
Business, Business Administration	17	47
Engineering, Sciences	16	34
Environmental Studies, Geography	10	45
Economics, Social Sciences	7	48
Computer Science, Technology	5	45
Others	13	n/a

4 STRATEGIC PLAN

This section outlines a strategic plan for TASC related to university-sector council collaboration.

4.1 Vision

The relationship between sector councils/industry and universities will be strengthened in order to achieve three main goals:

1. University curriculum will be developed that reflect industry needs and provide students with the skills and knowledge that employers are looking for.
2. University students will be aware of university programs that support relevant industries, and the number of students completing these programs will reflect labour market needs.
3. Universities and sector councils will work together to undertake research that informs and supports industry human resources planning.

4.2 Short-term Steps

1. TASC could develop an advisory committee of stakeholders from sector councils and universities with an interest in furthering sector council—university collaboration. This advisory committee will help to operationalize steps of this strategic plan, and help to prioritize and implement future initiatives.
2. The advisory committee could be developed through an online “community of practice,” with supplementary in-person meetings as needed. Alternatively, the existing TASC Working Group on Post-Secondary Education could serve as a formal advisory body, with the online “community of practice” as an additional forum for information sharing and exchange.
3. All sector councils, whether on the advisory committee or not, should be kept informed of what is happening in the area through regular bulletins from the advisory committee. This could take the form of a variety of web-based communication, including e-mail or webinars. The TASC web site should be updated on a regular basis to provide access to up-to-date information on current/planned collaboration.

4. The advisory committee should identify priorities in terms of what promotional materials should be developed immediately that would assist TASC and sector councils in publicizing the sector councils and the sector council approach to different audiences.
5. TASC should develop marketing/promotional materials suited for stakeholders within universities and related organizations to help to explain what sector councils are, what roles they play, and how sector councils can effectively work with universities to achieve the three major identified goals. Promotional materials could include a Microsoft PowerPoint deck, brochures/leaflets, FAQs, as well as additional information of relevance to university stakeholders on the TASC Web site.
 - Promotional materials should emphasize that sector councils are not just for “blue-collar” professions, and should identify the existing sector councils and the industries they represent.
 - Promotional materials should provide information on potential types of collaboration, and what benefits universities could accrue from collaborating with sector councils.
 - Generic materials could be developed for distribution to university presidents/vice presidents, while more detailed materials could be tailored to university department/faculty representatives and other prospective audiences (e.g. department-/faculty-specific career centres).

4.3 Medium-term Steps

1. TASC could share “best practices” in developing sector council—university collaboration through the development and distribution of a variety of documents to sector councils. These documents could include:
 - “Case studies” of sector councils with extensive and successful relationships with universities.
 - A list of university contacts that are interested in sector council relationships/partnerships.
 - Examples of documents that are typically utilized as part of sector council—university relationships, such as memoranda of understanding, research contracts, and roles & responsibilities charters.

2. TASC should work to develop a communications plan to promote the sector council approach and the possibilities of sector council—university collaboration through a variety of venues. These could include networking and making formal presentations at symposia and meetings of the following groups, among others:
 - AUCC, Council of Ontario Universities, Canadian Association of University Teachers.
 - The Canadian Association of Career Educators and Employers (e.g. through CACEE’s national conference in Spring and/or through its regional organizations).
 - Various associations of university Deans (e.g. the National Council of Deans of Engineering and Applied Science, Council of Ontario Deans of Engineering, others).

4.4 Medium- and Long-term Steps

1. TASC should expand relationships to include not only instructional/academic faculty but other university-supported activities (i.e. career centres, research centres, commercialization centres, etc.).
2. TASC should consider the establishment of regional/national forums between sector councils and universities. TASC could co-ordinate/manage such forums, which would include representatives from universities and sector councils. These forums would allow for greater information sharing and could be organized at a regional level or perhaps at an industry “group” level (i.e. meetings between university representatives and sector councils with a primary industry focus, meetings between sector councils with a manufacturing focus with those universities who are heavily involved in disciplines related to production/manufacturing, etc.).
3. TASC could develop a labour market supply-demand framework which can be used to identify potential labour market bottlenecks.

5 ACTIVITIES AND TIMELINES FOR STRATEGIC PLAN

The following outlines the specific activities and timelines for Years 1 to 3 in implementing the proposed strategic plan.

Timeframe	Activities	Responsibilities
	<p>ESTABLISH AN ADVISORY COMMITTEE AND/OR ONLINE FORUM ON UNIVERSITY—SECTOR COUNCIL COLLABORATION</p>	<ul style="list-style-type: none"> • TASC to lead creation of Terms of Reference for Advisory Committee or develop an online forum • TASC to work with its current Working Group on Post-Secondary Education and other sector councils to create a list of potential members and to invite stakeholders to participate • TASC to convene Advisory Committee meetings, finalize Terms of Reference, and organize future meeting times and locations • TASC to communicate Advisory Committee activities to all sector councils through regular bulletins or through its web site
<p>Year 1</p>	<p>COMMUNICATIONS STRATEGY Identify major priorities, activities and materials required to communicate to universities the role of sector councils and the potential benefits of university—sector council collaboration</p>	<ul style="list-style-type: none"> • TASC to manage the development of communications materials, including commissioning and managing a communications consultant • Advisory Committee to assist in development of a list of communication materials to be developed, with some potential “key messages” • Communications consultant to work with TASC to develop communications materials, including Power-Point presentation, brochures and leaflets (including FAQs), information for TASC web site, other • Communications consultant to work with TASC and Advisory Committee to determine which communications materials should be generic (for use across multiple faculties/universities) and which should be targeted to specific audiences/faculties • TASC and Advisory Committee to begin to identify communications activities to be undertaken over two- to three-year period, including opportunities for meetings, formal presentations, etc.

Timeframe	Activities	Responsibilities
<p>Year 2</p>	<p>RESEARCH ON BEST PRACTICES</p> <p>Detailed case studies on best practices in university—sector council collaboration should be undertaken to assist both sector councils and universities to attain their goals of increased collaboration in curriculum development and promotion of industries to prospective students/new workers</p> <p>Best practices to include both effective means of collaboration (process) as well as examples of effective outcomes of collaboration</p>	<ul style="list-style-type: none"> • TASC and Advisory Committee to identify preliminary list of examples of best practices in university—sector council collaboration • TASC to lead the commissioning of a researcher to undertake a research project on best practice case studies • Researcher, under management of TASC, and with direction and assistance of Advisory Committee, to complete case studies on selected examples of best practices in collaboration • Relevant sector councils to assist Researcher in accessing information on best practices • Researcher to develop useful and accessible case studies, and overall findings to successfully developing collaboration, and examples of outcomes of past collaboration • Advisory Committee to provide feedback to researcher on its work • Researcher case studies to be shared by TASC with all sector councils
<p>Year 2 & Year 3</p>	<p>ADVISORY COMMITTEE</p> <p>Advisory Committee to meet approximately 3–4 times a year</p> <hr style="border-top: 1px dashed #ccc;"/> <p>COMMUNICATIONS STRATEGY</p> <p>Implement communications strategy</p>	<ul style="list-style-type: none"> • TASC to coordinate meetings of Advisory Committee • Advisory Committee to work with TASC to help direct and advise on university—sector council collaboration <hr style="border-top: 1px dashed #ccc;"/> <ul style="list-style-type: none"> • TASC to undertake networking and making formal presentations at identified venues (e.g., AUCC, CACEE, university deans associations, others) to help promote collaboration • TASC to use best practices research and findings in its communications materials • Advisory committee to work with TASC as needed • Communications consultant to develop further communications materials based on best practices case studies

The following table outlines potential roles of various stakeholders in undertaking the proposed activities related to each of the three identified goals.

Roles	Goal 1: Curriculum Development	Goal: 2 Attracting Students to Programs	Goal: 3 Undertaking Research
TASC	<ul style="list-style-type: none"> TASC to raise awareness of sector councils and the sector council approach to universities TASC to develop an Advisory Committee and/or online “community of practice” to serve as a informational resource and a venue for information sharing for interested parties (sector councils, universities, or related organizations) 		
	<ul style="list-style-type: none"> TASC to raise awareness of sector councils by developing promotional materials targeted at professors and others involved in the curriculum development process 	<ul style="list-style-type: none"> TASC to develop promotional materials tailored to students that introduce industries and their sector councils TASC to undertake a presentation at the national conference of the Canadian Association of Career Educators and Employers (CACEE), among others, to create awareness of sector councils 	<ul style="list-style-type: none"> TASC to undertake workshops/presentations at annual meetings of national and/or regional faculty associations (e.g. National Council of Deans of Engineering and Applied Science) and other macro-level organizations (e.g. Canadian Association of University Teachers) to publicize sector councils and communicate the benefits of research collaboration
Sector Councils	<ul style="list-style-type: none"> Sector councils to provide universities with the results of labour market studies and any other relevant research in order to assist universities in assessing human resource needs in specific industries Sector councils to work with universities to ensure curriculum reflects industry requirements (e.g. meet occupational standards and industry needs) 	<ul style="list-style-type: none"> Sector council representatives to attend career fairs or similar events in order to promote awareness of their sector to students Sector councils to provide labour market information to TASC in order to assist in the development of promotional materials targeted towards programs/professions in which there are labour shortages 	<ul style="list-style-type: none"> Sector councils to determine which faculties or research institutes (e.g. Institute for Sustainable Energy, Environment and Economy) at universities are appropriate to approach for research collaboration

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Roles	Goal 1: Curriculum Development	Goal: 2 Attracting Students to Programs	Goal: 3 Undertaking Research
<p>Roles</p>	<ul style="list-style-type: none"> • Sector councils to provide information about industry conferences and other events which faculty members could attend for professional development purposes 	<ul style="list-style-type: none"> • Sector councils to work with relevant members of the university community to develop databases of university programs in support of their sector, to post on sector council websites 	
<p>Universities</p>	<ul style="list-style-type: none"> • Professors, especially of upper-year undergraduate or graduate seminar courses, to work with sector councils to develop curriculum, including identifying suitable guest lecturers, etc. • Research done in partnership between universities and sector councils could help to inform curriculum development 	<ul style="list-style-type: none"> • Career centres to promote awareness of various sectors among students by distributing promotional materials produced by TASC/sector councils • Career centres to publicize events such as national conferences relevant to particular sectors which students could attend • Universities to provide enrollment tracking data 	<ul style="list-style-type: none"> • Institutes at universities, esp. those which are sector-specific (e.g. Institute for Sustainable Energy, Environment and Economy) to assist in undertaking relevant sector council research studies
<p>Others</p>	<p>—</p>	<ul style="list-style-type: none"> • CACEE could promote awareness of sector councils to members 	<p>—</p>

APPENDIX A: FACULTIES AND UNIVERSITIES OF INTEREST

In order to determine the faculties and universities of interest to sector councils, the Consultant provided an opportunity in both the e-mail survey and key informant interviews for respondents to indicate which ones they would be interested in working with. The e-mail survey provided a list of six response categories:

- Engineering, Science, Technology;
- Computer Science;
- Business, Business Administration;
- Environmental Studies, Geography;
- Economics/Social Sciences; and
- Other (open-ended).

Where e-mail survey responses were not available (BioTalent, ECO, Canadian Supply Chain Sector Council), responses given in the key informant interviews were used. Where this was not possible, the Consultant has filled in potential faculties of interest based on its own estimation of likely choices. These sector councils are indicated by italics. Two sector councils indicated in their response to the e-mail survey that they are not interested in developing relationships with universities, university faculties or university associations in the future (the Canadian Automotive Repair and Service Council and the Installation, Maintenance and Repair Sector Council).

Table 1

SECTOR COUNCILS AND RELEVANT UNIVERSITY FACULTIES*

SECTOR COUNCILS	RELEVANT UNIVERSITY FACULTIES
Aboriginal Human Resource Council	Education colleges
<i>Apparel Human Resources Council</i>	<i>Business, Business Administration</i>
<i>BioTalent Canada</i>	<i>Science; “All except social sciences.”</i>
Canadian Agricultural Human Resource Council	Agriculture
Canadian Apprenticeship Forum	Anything that could link to advanced standing for journey persons and that might not be program specific.
<i>Canadian Aquaculture Industry Alliance</i>	<i>Engineering, Science, Technology</i> <i>Environmental Studies, Geography</i>
Canadian Automotive Repair and Service Council	—
Canadian Aviation Maintenance Council	Management
Canadian Council of Professional Fish Harvesters	Engineering, Science, Technology Environmental Studies, Geography Marine Institutes
<i>Canadian Council of Technicians and Technologists</i>	<i>Engineering, Science, Technology</i>
Canadian Food Industry Council	Business, Business Administration Logistics “Where there is a specific retail program”
Canadian Plastics Sector Council	Engineering, Science, Technology
Canadian Printing Industries Sector Council	Faculties that offer programs related to printing and graphic communications sector.
<i>Canadian Professional Logistics Institute</i>	<i>Engineering, Science, Technology</i> <i>Computer Science</i> <i>Business, Business Administration</i> <i>Economics/Social Sciences</i>
Canadian Steel Trade and Employment Congress	Engineering, Science, Technology Business, Business Administration “Schools of management”

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Canadian Supply Chain Sector Council	“Business faculties”
Canadian Technology Human Resources Board	Engineering, Science, Technology Computer Science
Canadian Tourism Human Resource Council	Business, Business Administration
Canadian Trucking Human Resources Council	Business, Business Administration (management programs)
Child Care Human Resources Sector Council	Social Sciences
Construction Sector Council	Engineering, Science, Technology Business, Business Administration Environmental Studies, Geography Economics/Social Sciences
Contact Centre Canada	Industrial Relations, Business Administration, Technology
Council for Automotive Human Resources	Engineering, Science, Technology
Cultural Human Resources Council	Arts and Fine Arts
Electricity Sector Council	Engineering, Science, Technology Environmental Studies, Geography
Environmental Careers Organization of Canada	“Environment is multidisciplinary and cross-sectoral, but a large number come from specific disciplines. ... A lot also come from humanities and social science areas.”
Forum for International Trade Training	Business, Business Administration
HR Council for the Voluntary/Non-Profit Sector	Environmental Studies Social Sciences Social Work, Arts, Education “MBA programs”
Information and Communications Technology Council	Engineering, Science, Technology Computer Science Business, Business Administration
Installation, Maintenance and Repair Sector Council	—
Mining Industry Human Resource Council	Engineering, Science, Technology Environmental Studies, Geography
Motor Carrier Passenger Council of Canada	Development of a comprehensive degree program in transportation
National Seafood Sector Council	Food processing programs/Seafood processing programs. Food science/technology.
Petroleum Human Resources Council of Canada	Engineering, Science, Technology Business, Business Administration Environmental Studies, Geography
Police Sector Council	Business, Business Administration Management sciences and administration
Textiles Human Resources Council	Engineering, Science Technology ¹ Computer Science Business, Business Administration ¹ Environmental Studies, Geography Economics/Social Sciences
Wood Manufacturing Council	Engineering, Science, Technology Business, Business Administration Economics

1. These answers “represent those areas in which [they] are currently actively involved and working with various institutions. There is a good chance that [their] Council would be interested in all of these areas in the future.”

Table 2 – University Faculties

The following table indicates which faculties/departments identified in Table 1 exist at which major universities across Canada. This table does not include any institutions that are members of the ACCC.

UNIVERSITIES	FACULTIES/DEPARTMENTS													
	ENGINEERING	SCIENCE, TECHNOLOGY	COMPUTER SCIENCE	BUSINESS, BUSINESS ADMINISTRATION	ENVIRONMENTAL STUDIES, GEOGRAPHY	ECONOMICS/SOCIAL SCIENCES	AGRICULTURE	EDUCATION	MARINE INSTITUTES/AQUATIC PROGRAMS	PRINTING/GRAPHIC COMMUNICATIONS	SOCIAL WORK	FOOD SCIENCE	HOSPITALITY/TOURISM MANAGEMENT	RETAIL MANAGEMENT
Acadia University	•	•	•	•	•	•		•						
Bishop's University		•	•	•	•	•		•						
Brandon University		•	•	•	•	•		•						
Brock University		•	•	•	•	•		•						
Cape Breton University		•	•	•	•	•		•					•	
Carleton University	•	•	•	•	•	•				•				
Concordia University	•	•	•	•	•	•		•						
Dalhousie University	•	•	•	•	•	•								
Lakehead University	•	•	•	•	•	•		•						
Laurentian University	•	•		•	•	•		•		•				
McGill University	•	•	•	•	•	•	•	•		•	•			
McMaster University	•	•	•	•	•	•				•				
Memorial University of Newfoundland	•	•	•	•	•	•		•	•	•				
Mount Allison University		•	•	•	•	•								
Mount Saint Vincent University		•		•		•		•					•	
Nipissing University		•	•	•	•	•		•						
Ontario College of Art & Design									•					
Queen's University	•	•	•	•	•	•		•						
Royal Roads University				•	•								•	
Ryerson University	•	•	•	•	•	•				•			•	•
Simon Fraser University	•	•	•	•	•	•		•						
St. Francis Xavier University	•	•	•	•	•	•		•						
Thompson Rivers University		•	•	•	•	•		•		•			•	
Trent University		•	•	•	•	•		•						
Université de Moncton	•	•	•	•	•	•		•		•				
Université de Montréal		•	•	•	•	•		•						
Université de Sherbrooke	•	•	•	•	•	•		•		•				
Université du Québec (all locations)	•	•	•	•	•	•		•	•	•			•	
Université Laval	•	•	•	•	•	•	•	•		•	•			
Université Sainte-Anne		•				•		•						
University of Alberta	•	•	•	•	•	•	•	•						
University of British Columbia	•	•	•	•	•	•		•		•	•			
University of Calgary	•	•	•	•	•	•		•		•				
University of Guelph	•	•	•	•	•	•	•		•				•	
University of Lethbridge		•	•	•	•	•	•							
University of Manitoba	•	•	•	•	•	•	•	•		•	•			
University of New Brunswick	•	•	•	•	•	•		•						
University of Northern British Columbia		•	•	•	•	•		•		•			•	
University of Ottawa	•	•	•	•	•	•		•						
University of Prince Edward Island		•	•	•	•	•		•						
University of Regina	•	•	•	•	•	•		•		•				
University of Saskatchewan	•	•	•	•	•	•	•	•						
University of Toronto	•	•	•	•	•	•		•		•				
University of Victoria	•	•	•	•	•	•		•		•				
University of Waterloo	•	•	•	•	•	•				•				
University of Western Ontario	•	•	•	•	•	•		•						
University of Windsor	•	•	•	•	•	•		•		•				
University of Winnipeg	•	•	•	•	•	•		•						
Wilfrid Laurier University		•	•	•	•	•		•		•				
York University	•	•	•	•	•	•		•						

APPENDIX B: RESPONSE FROM ACADEMICS

The Alliance of Sector Councils asked six university academics (a past President and Dean; a Director of a School; a Professor, an Associate Professor; a Past professor and a Director of Continuing Education) for their reaction to the research report prepared by Malatest and Associates on the University-Sector Council Partnership Research Project. The report was also circulated to members of the Executive of the Canadian Association for University Continuing Education (CAUCE) and discussed at their meeting held on February 27, 2008.

The request focused on four questions:

1. Will the information in this report facilitate the development of university curricula that reflect industry needs and provide students with the skills and knowledge that employers are looking for?
2. Will the information in this report lead more university students to pursue studies/programs that reflect market needs?
3. Will the information in this report encourage joint research that informs and supports industry human resources planning?
4. Will the information in this report help in the development of sustainable partnerships between sector councils (industry) and universities in Canada?

In general, the findings of the report were determined to be sound and valid. The proposed strategic plan described as “workable” by one reviewer and “excellent” by another, presents a clear framework to move us forward in achieving the objectives of the project. There are however some conditions. These include:

- Sector councils must have a clearly identified goal with measurable deliverables before approaching a potential partner
- TASC and sector councils will need to commit significant amount of resources and patience. Results will be achieved over the longer term
- Partnering with universities will require different strategies than partnering with business or colleges
- TASC can offer useful service to its members by acting as a direct source for “best practice” advice when a sector council has a clearly identified objective for a university interaction
- There should be more focus on the role of the individual professor as control of course design rests in the hands of individual faculty members. Also, more often than not, the research program is initiated by and run by individual professors.

1. Will the information in this report facilitate the development of university curricula that reflect industry needs and provide students with the skills and knowledge that employers are looking for?

Implementing some of the measures/recommendations in the report may lead to the development of curricula that is more reflective of industry needs. However, this is not likely unless there is a refocusing of the proposed strategic plan. The refocusing would involve:

- Positioning the development of more relevant curricula as the provision of leading edge information and knowledge that will not only provide the individual student with an edge but also position the university and its program as one of the key institutions in that field of study
- Including continuing education as a key partner. Lifelong learning is now the norm and continuing education should be part of the strategy. CAUCE is an umbrella group whose institutional members (47 Canadian universities) are well positioned to engage in the development of curriculum that could meet industry needs
- Leveraging the role and influence of individual professors in curriculum development and research. A more “micro” approach to reach them and get them engaged is required
- Exploring involvement in university advisory councils. Sector councils could consider canvassing their membership to identify if any firms already participate in faculty/department advisory groups and collect “best practices”. Leading departments who want to ensure that they are at the cutting edge maintain effective advisory councils with representatives from industry, peers from other universities, and alumni
- Communicating the relevance of academic programs and curricula to student attraction and more importantly, retention. These factors are key determinants of provincial funding to universities.

2. Will the information in this report lead more university students to pursue studies/programs that reflect market needs?

There are studies that document how students choose their professions/occupations and these should be consulted in further developing the strategy. While the report does present some interesting tracks that could

be pursued (campus career centres, job fairs....) it is unlikely that this objective will be met without taking additional measures to reach students directly about industry needs. The achievement of this objective could be enhanced by:

- Including high school counselors as important agents in the process of information dissemination to the students
 - Working with university staff to organize a job fair particular to the sector
 - Establishing a presence in student newspapers through advertising
 - Jointly funding university outreaches to high school students
3. Will the information in this report encourage joint research that informs and supports industry human resources planning?

In part. Implementation of the recommendations could encourage more joint research, especially in new leading edge areas such as industries that will need to develop innovative solutions to climate change. In addition to the recommendations made in the report, the following approaches should be considered:

- Identify existing research funding mechanisms (granting councils, provincial funding...) and researchers who are presently undertaking research on topics of interest to sector councils. The objective would be to leverage these resources and facilitate joint research
- Create task forces on research subjects and ensure that professors are well represented on them
- Publicize the reports and make them available to the press and to the student body through articles in the student newspapers
- Pursue other forms of educational collaborations such as graduate student placements, co-ops, field visits etc...
- Consider doing joint research on the challenges of university curricula in meeting the needs of the job market (process; constraints; student career education...)

It was also noted that there is a growing interest in the funding of “research clusters” that are interdisciplinary

in nature and that engage university researchers in partnerships with business and the community. Some time ago, The Social Science and Humanities Research Council (SSHRC) brought stakeholders together to discuss new directions for this kind of research. The list of participants could form a good starting point for communication between TASC members and the university community

4. Will the information in this report help in the development of sustainable partnerships between sector councils (industry) and universities in Canada?

Yes, the report gives a comprehensive picture of the opportunities that present themselves to sector councils in terms of building dependable relations with university departments. The report, however, does not sufficiently emphasize the challenges of this sort of approach. Good relations that will lead to curriculum reform, attracting students to programs and undertaking joint research will depend on a strong sectoral commitment to maintain an on-going dialogue with key opinion leaders in the various university departments.

The following recommendations were also offered:

- Sector councils could consider surveying their members to inventory their current activities with universities and determine where some synergies can be achieved in particular universities
- Sector councils could consider establishing distinct post-secondary/university liaison officers that will provide the critical continuity required by the approaches to particular campuses
- TASC or Sector Councils could develop a mailing list of professors teaching in their areas of interest and ensure that they at least are made aware of sector councils and their interests. Include professors in schools of public administration
- Highlight early success stories of partnerships between a specific council and a university. Communicate these stories effectively
- Consider non-traditional partners (i.e: CAUCE) as they may have more flexibility to influence the outcomes of this project than other organizations such as AUCC.