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Summary Report
of a Consultation Workshop on:
**Critical Skills in
Strategic Industry
Sectors of the
Canadian Economy**

The Atlantic – in Moncton
June 3rd and 4th, 1999

Secretariat of the Expert Panel on Skills

Canada

CONSULTATION WORKSHOP ON:

**CRITICAL SKILLS
IN STRATEGIC INDUSTRY SECTORS
OF THE CANADIAN ECONOMY**

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IDENTIFYING THE ISSUES

The Panel's secretary, Gilles Jasmin, welcomed participants and provided an overview of the work accomplished so far. Having noted that the main purpose of the consultation workshops was to gather the views and ideas of knowledgeable people with personal experience in different aspects of the skills challenge, he pointed out that the Expert Panel had a unique opportunity to influence public policy. Panel Members Jacquelyn Scott and Deborah Fry joined the group on the second day.

Participants broke into small groups for a short brainstorming exercise aimed at identifying issues and opportunities in the five industry sectors under study, as well as those in the Canadian society and economy in general.

The many issues raised were regrouped under a number of themes. These were discussed in small groups, with a view to develop recommendations for action. Hereafter is a summary of the main conclusions as reported in plenary.

EDUCATION

Recommendations for Action

- The core curriculum of K-12 through the post-secondary level should include "soft skills" (incl. critical thinking, learning strategies and listening skills, problem solving, oral and written communications, team work, self-directedness, leadership); a system for measuring outcomes should be developed at national level, with input from outside the school system.
- There should be a greater alignment between public education and the new knowledge-based industries; for example, the use of "virtual firms" may be a valuable teaching tool at the high school level; more generally, training for technical skills should be complemented by training in business-relevant skills
- Students should be encouraged to take risks.
- There is a need to assess the ability of the teaching profession to adapt to today's needs
- A university education is too often seen as the only "good" outcome; efforts should be made to make other career options better known and appreciated and the curricula should be modified to put more emphasis on vocational training, for example, by introducing more apprenticeship programs and by supporting work-place training.

- The drop-out rate in universities is much too high: standardized provincial exams should be introduced and higher entrance requirements for universities imposed.
- At the K-12 level, some form of industry partnering, not necessarily corporate sponsorship, may be an acceptable way of accessing additional resources.

PARTNERSHIPS BETWEEN EDUCATION AND INDUSTRY

Recommendations for Action

- Improve or develop vehicles that will promote and facilitate partnership between industry and educational institutions, particularly with a view to identify critical skills shortages.
- Support the creation of a market-driven education system, by demanding of academic institutions that their curricula match industry needs much more closely; at the very least, bring together industry and K-12/post-secondary teachers/administrators to discuss needs.
- Partner with industry, trade unions, departments of education, and specific companies to create awareness of the full range of career opportunities and to respond to new training needs.
- Create a database of critical skills, core competencies and partnership models related to various regions, institutions and industry sectors.
- Extend internship/apprenticeship models beyond trades to other areas.
- Increase industry involvement in setting national occupational standards and certification, and in curriculum development, with emphasis on regional needs; increase regional representation on national sectoral organizations.
- Co-ordinate training in trades by matching industry needs to universal training curricula.
- Increase the use of Internet to connect companies, institutions and learners; use the web to increase access to distance education and to share information on critical skills, best practices, career information, etc.
- Support mentoring programs, which can be beneficial to both the novice and the mentor.

TRANSITION OF YOUTH FROM SCHOOL TO WORK

Recommendations for Action

- K-12 institutions should play a more active role in community-based education and training; for example, school resources and facilities should be more easily accessible to their surrounding communities and strong links established between them and public libraries and Community Access Program (CAP) sites.
- The education system – both K-12 and PSE – should be more responsive to community needs and should make sure youth become engaged in local economies; “extension departments” should be established in elementary and secondary schools to bridge the gap between the class room and the “real world” represented by community organizations, youth groups, businesses and business organizations, etc.; the same general approach can be used in colleges and universities.
- The “enterprising spirit” should be encouraged in young people, much more than is the case now, for example by integrating entrepreneurship into the K-12 curriculum, by supporting school entrepreneurship fairs, etc.
- More efforts and moneys should be invested in helping young people become life-long learners, particularly by reducing the student-teacher ratio and making wider use of mentorship; special emphasis should be put on new media literacy; community-based initiatives should be provided full access to the new information technologies.
- Increased availability of student loans and control over fees are both needed to insure continuing access to postsecondary education for all.
- The interest relief provision should also apply to part-time students.
- Give students greater tax incentives to stay in school and complete their education.

PEOPLE

Recommendations for Action

- Study the findings of the relevant Royal Commissions and other studies in order to identify under-represented groups, and act on existing recommendations.
- Recognize and support regional diversity by encouraging organizational development at that level.

- Vigorously undertake or support community economic development that restores the capacity of all people to seize opportunities and become self-reliant community members, for example: by strengthening community education initiatives; by providing core funding (not project funding) for labour force development groups.
- Improve communication between training institutions, industry and target groups, for example: by using sabbaticals or professional development periods to improve links between training/educational institutions and workplaces.
- Effect a workplace cultural change in which diversity is seen as a benefit, not a cost, and spread information on the success of inclusion.
- Improve the perception of technology and trade occupations and of non-university career streams, for example: by making appropriate changes to K-12 curricula; by educating and informing the public and key audiences about non-university opportunities; by encouraging job shadowing, mentorship and coaching as part of work/career strategies.
- Improve career counselling, for example: by supporting parents; and by setting up links between school guidance activities and community resources.

CAREER AND LABOUR MARKET INFORMATION

Recommendations for Action

- Correct, up-to-date and comprehensive career information is a life-long tool that should be more widely accessible.
- Industry should be directly involved in the development of labour market information, although the overall responsibility should rest with government.

ECONOMIC DEVELOPMENT

Recommendations for Action

- Regional development requires long-term commitment, decision-making at regional level, and a favourable interplay between a number of key factors, including: skills (technical, managerial and professional), “hard” structures for transportation and communications, “soft” structures (e.g., labour market policies, safety net), venture capital and investments in R&D and commercialization.

- Also needed is a culture of commitment and a mind-set that favours entrepreneurship, innovation and risk-taking; a major effort at raising public awareness is required; "entrepreneurship" must become part of the core curriculum in K-12 and beyond.
- We need to capitalize on our existing resources, which can be done effectively by establishing "incubators" for SMEs; incubators should have multiple functions, e.g., technical support, business management advice, co-op placements, speakers, etc.; they should be run jointly with business; they should provide services both on-site and off-site.
- Industry should be encouraged to make their state of the art tools and equipment available to teaching institutions, and in turn, institutions should be willing to work more closely with the private sector, for example through co-op programs, mentorship, business internships, seminars for entrepreneurs, etc.
- Efforts should be made to bring entrepreneurs to consider training as an investment, not a cost; a "training tax" could be an effective way to change companies' behaviour and attitude; another option could be to allow employers to deduct a portion of their spending on employee training from their EI premiums.

BUSINESS AND MANAGEMENT SKILLS

Recommendations for Action

- While scientists and engineers need to appreciate the value of business skills, business people need to educate themselves in science and technology.
- SME owners need to develop their own business skills, for example through special training kits closely adapted to their particular needs.
- Efforts should be made to harness the expertise of retired business people, particularly for the development of SMEs and for helping young people develop an appreciation of business as a career option.

MOBILITY OF LABOUR

Recommendations for Action

- Companies who invest in training are better able to retain their employees, and businesses should work together and find ways to share their resources and expertise in human resources management and development; much wider use could be made of distance education, for example.
- Work-related training should operate within a national system of certification, so as to insure quality and transferability across the country; the highest standards should be applied.
- Small businesses could be made more attractive to employees, for example by instituting a program of tax credits for their investments in training.
- The culture and lifestyle of Atlantic Canada should not be underestimated as a means to attract people, business and jobs.
- The new information and communication technologies can help offset distance and isolation and make it possible for Atlantic Canada to participate in the new economy; governments should make sure that electronic connections are satisfactory by increasing the available bandwidth
- The brain drain out of the Atlantic and out of Canada is certainly an issue, but on the other hand, people who later return do bring knowledge, experience and unique contacts.

RESOURCES AND FUNDING MECHANISMS

Recommendations for Action

- Community colleges and universities together, working in close partnership with the private sector, should be much more involved in applied research that has a potential for commercialization; capital intensive facilities must be shared..
- It is equally important that basic research be conducted in Atlantic Canada.
- There is a need for "home-grown" scientific and technical entrepreneurs."
- While Funding Councils remain the best mechanism for allotting dollars for peer reviewed research, the funds currently available are insufficient.

- A new formula is needed for core funding universities, which would take into account other factors than the number of students.
- Business must recognize the need to increase its investment in R&D; there is a need to change a mind-set associated with a branch-plant economy.
- Training equipment in many colleges and universities is too often obsolete or aging; the private sector should be a stronger partner and share resources with education institutions.

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