

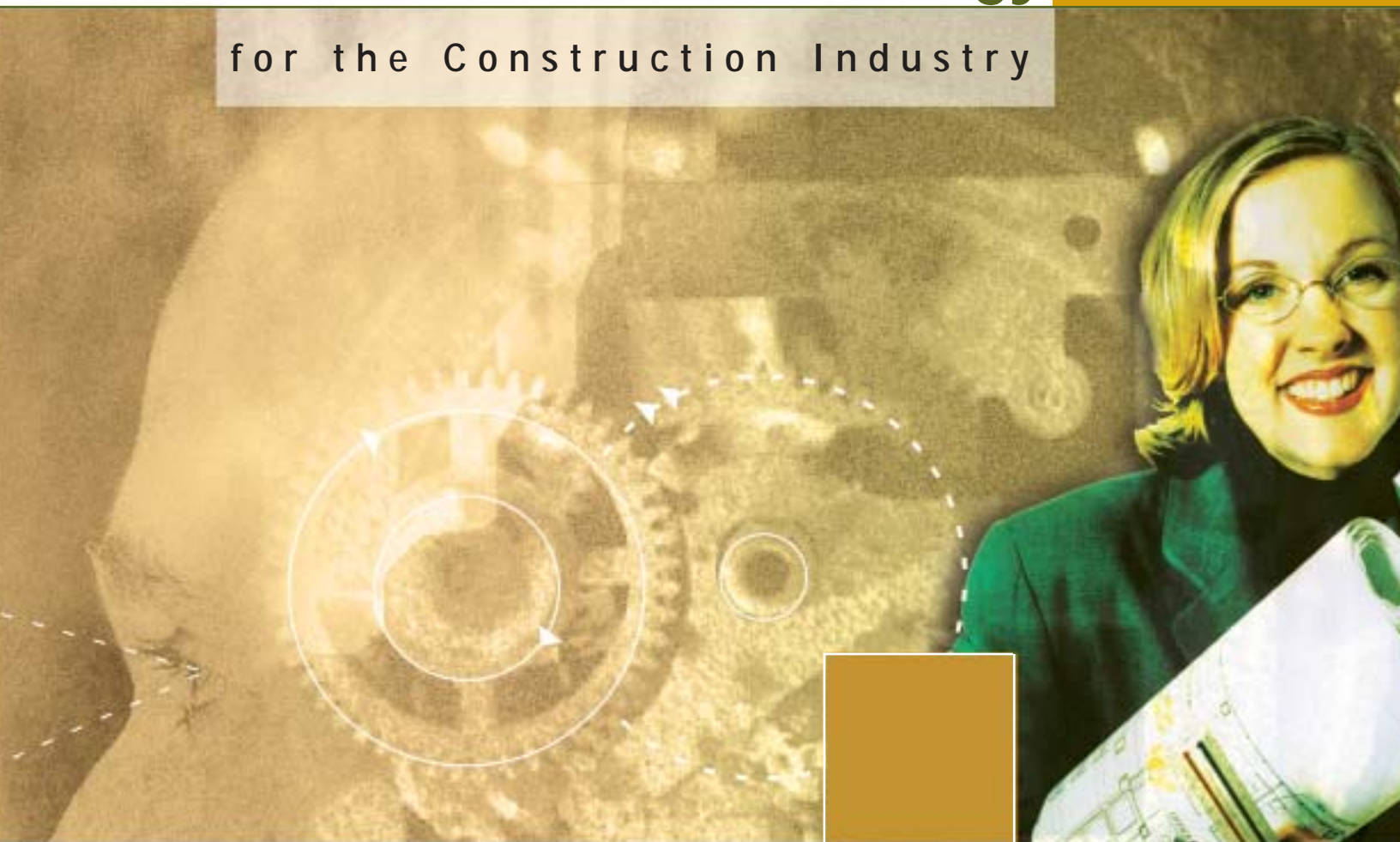
CONSTRUCTION
SECTOR COUNCIL



CONSEIL SECTORIEL
DE LA CONSTRUCTION

▶▶ Essential Skills Strategy

for the Construction Industry



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▶▶ What Every Worker Needs

What are Essential Skills? The Government of Canada has coined this phrase to describe nine skill sets that cover reading, mathematics, critical thinking, computer use, and other skills required to function effectively in every workplace.

The topic of Essential Skills is of growing interest within the construction industry. Essential Skills are important fundamental skills for this industry and there is work to be done in facilitating the assessment and training of the workforce to ensure that every worker has these required skills to meet the ever-changing demands of the industry.

The issue of Essential Skills has emerged consistently in labour market studies, focus groups, and other industry consultations over the last 15 years. A recent Essential Skills Workshop hosted by the Construction Sector Council (CSC) confirmed these skills to be critical for the construction industry.

As far back as the 1980s, the Government of Canada supported several initiatives to further the field of Essential Skills, and in particular their application in the construction industry. Very good work has already been done for trades/occupations in individual provinces/territories and nationally. However, more needs to be done. In particular, there is a need to share best practices across the industry and to begin to expand the awareness of this issue and to work together to enable more of the industry to benefit from current work and future initiatives.



The identified issues and needs related to Essential Skills have driven the creation of this Essential Skills strategy for the construction industry. It strives to address the areas of need that fit within the mandate of the CSC and that can best be tackled at a national level.

Section 1

Essential Skills Strategy

Overall Objective

The overall objective of the Essential Skills Strategy is to assist the workforce in the construction industry to achieve the levels of Essential Skills required to fully participate in training and employment.

Key Strategic Directions

Five-Point Strategy

The strategy has five key areas of emphasis, as illustrated in the diagram below. The CSC will build the issue of Essential Skills into its operational framework both implicitly and explicitly. Where appropriate, Essential Skills will be incorporated into current and future initiatives undertaken in other streams of activity. Where necessary, the CSC will initiate activities and will work with the industry to specifically address Essential Skills. As in all aspects of the CSC's work, it will initiate, develop, and respond to partnership opportunities to further the field of Essential Skills in the construction industry.



1. Research

What will this look like?

The CSC will undertake and facilitate new research initiatives necessary to support the needs of the construction industry and the CSC's work in Essential Skills. It will ensure that initiatives are supported by strong evidence achieved through rigorous research.

In addition to "greenfield" research, Essential Skill elements will be incorporated into other research initiatives where appropriate in order to maximize the results of studies that are commissioned and to continuously place Essential Skills in the mainstream of activity.

How will we do this?

Before moving forward to develop new resources, tools, or training, a comprehensive inventory of existing materials will be compiled and made available to the industry and other key stakeholders.

The CSC will initiate and be open to partnership opportunities to conduct research into areas of interest to the construction industry that would further developments in Essential Skills.

When we are successful, what will we see?

- New knowledge about Essential Skills and their application to the construction industry will be created.
- All Essential Skills funding proposals will be supported by substantiating evidence.
- Experts and practitioners in the field and the construction industry will be better informed on aspects of Essential Skills.
- Essential Skills will be a component of other research initiatives where appropriate.



2. Awareness

What will this look like?

The CSC will seek to engage the industry on the topic of Essential Skills and will initiate, and be open to partnership opportunities that will:

- Increase awareness among employers and the workforce on the importance of Essential Skills;
- Raise the industry's awareness of resources and tools available and how to access and use these materials;
- Educate the general public about the importance of Essential Skills in construction work; and
- Incorporate Essential Skills into career awareness information.

How will we do this?

The CSC will utilize its existing communication vehicles to share information about Essential Skills including:

- Essential Skills articles in the CSC newsletter;
- Posting new developments in the field on its website; and
- Incorporating Essential Skills requirements into career awareness initiatives such as:
 - Ironworker Aboriginal Career Awareness Project;
 - Boilermaker Career Awareness Project;
 - Construction Career Information Portal.

When we are successful, what will we see?

- Increased understanding among the industry and general public about the importance of Essential Skills in the construction industry;
- Essential Skills presented with other skill requirements for careers in construction;
- Greater awareness and use of Essential Skills resources and tools within the construction industry.

3. Clearinghouse

What will this look like?

The CSC will provide a clearinghouse function for Essential Skills information relevant to the construction industry. Through this function the CSC will:

- Make available the results of our own in-house research projects;
- Share best practices resulting from projects undertaken through the CSC and through other key stakeholder groups;
- Make information, tools and resources easily accessible for the use of the industry; and
- Partner with groups who wish to share the results of their work with the industry.

How will we do this?

The CSC will develop a segment on its website devoted to Essential Skills. This will be a “one- stop” point of access for all information and links related to Essential Skills for the construction industry.

The CSC will designate a point of contact to respond to queries related to Essential Skills.

When we are successful, what will we see?

- Increasing numbers of visitors to the website downloading information on Essential Skills;
- Greater sharing of materials and tools that have already been developed;
- Greater economies of scale achieved from developmental work.

4. Coordination

What will this look like?

The CSC is ideally positioned to play a coordinating role regarding Essential Skills for the construction industry. Through this component of the strategy, we will facilitate the pooling of resources, thereby enabling the industry to achieve economies of scale and a more efficient use of resources. The CSC will link organizations wishing to do work in Essential Skills for the construction industry and will only consider partnering on projects that build on, adapt existing material, or explain why new development is necessary.

How will we do this?

- Establish a National Essential Skills Coordinating Committee with a mandate to provide guidance to the CSC on matters related to Essential Skills.
- Encourage partnerships with organizations that are seeking to do work that has broad applicability to the construction industry.
- Initiate projects that result in tools that can be broadly used by the construction industry.

When we are successful, what will we see?

- Greater industry involvement in the development of the field of Essential Skills for construction.
- Projects undertaken that have broad applicability across the industry.
- New tools that advance the development of Essential Skills.

5. Standards and Training

What will this look like?

- The CSC will incorporate Essential Skills into existing and new national construction trade/occupational standards, and into training development projects where appropriate. This will help integrate Essential Skills training into technical trades training.

How will we do this?

- The CSC will review its existing standards and training projects with a view to incorporating Essential Skills where appropriate.
- All new projects will be required to address whether there should be an Essential Skills component.
- The CSC will promote the value of incorporating Essential Skills into the National Occupational Analysis while being sensitive to provincial/territorial jurisdictions.

When we are successful, what will we see?

- Essential Skills will be considered a key component of training for construction trades/occupations.
- The Essential Skills profiles will be incorporated into the NOA.
- Construction workers will have an opportunity to develop their Essential Skills while taking technical training.

Who do we need to help us?

The CSC will need to work in partnership with all key stakeholders to reach its objective of a workforce possessing the required Essential Skills. These stakeholders include:

- Employers
- Buyers of construction (owners/clients)
- Labour groups
- Workers
- Canadian Council of Directors of Apprenticeship (CCDA)
- Association of Canadian Community Colleges (ACCC)
- Canadian Apprenticeship Forum (CAF)
- Government of Canada
- Provincial/territorial governments; and
- Training providers and Essential Skills practitioners

We invite your participation as we move forward to ensure construction workers possess all the skills they need to succeed.

▶▶ Section 2

Background

What are Essential Skills?

The Government of Canada has identified the set of skills that are used in most if not all occupations and grouped them together as Essential Skills. Essential Skills are enabling skills that people use to:

- Learn technical skills;
- Perform required job tasks; and
- Adapt to workplace changes.

The Government of Canada's list of Essential Skills includes:

- Reading Text
- Document Use
- Writing
- Numeracy
- Oral Communication
- Thinking Skills:
 - Problem Solving
 - Decision Making
 - Critical Thinking
 - Job Task Planning and Organizing
 - Significant Use of Memory
 - Finding Information
- Working with Others
- Computer Use
- Continuous Learning
- Other Information

The Government of Canada commissioned the Essential Skills Research Project (ESRP) to develop ways to describe these skills, adapting scales from the International Adult Literacy Survey and the Canadian Language Benchmarks and drawing on other sources from the United States, Australia and Great Britain.

The ESRP then conducted 3,000 interviews to provide information on how these skills were applied to a broad range of jobs. The workers interviewed were identified by their employers as performing their job in a fully satisfactory manner. The ESRP focused on occupations requiring a secondary school diploma or less and on-the-job training. (These occupations were identified using the National Occupational Classification.) Additional data collection



occurred, and continues, through the National Occupational Standards program and the Interprovincial Standards (Red Seal) program to generate Essential Skills data for occupations requiring higher levels of formal education.

The Government of Canada continues to develop Essential Skills profiles for all Red Seal occupations in conjunction with the updating of the National Occupational Analyses. These profiles identify not only the specific Essential Skills required to perform in an individual trade/occupation but also provide a description of the level of each skill required. Profiles have been completed for the following construction trades:

- Boilermakers
- Bricklayers
- Cabinet Makers
- Carpenters
- Heavy Equipment Operators (except Crane)
- Industrial Electrician
- Insulators
- Lather (Interior Systems Mechanic)
- Painters and Decorators
- Trades Helpers and Labourers

More information on Essential Skills and the work being done through the Government of Canada can be found on their website www.hrdc-drhc.gc.ca/essentialskills.

The Need

Essential Skills Issues Emerging From Labour Market Studies

The issue of Essential Skills was raised, either directly or indirectly, in many construction trade labour market studies completed over the last 15 years. Direct mention refers to the need to upgrade the Essential Skills (called basic, soft, business, literacy, numeracy) of the current workforce. Indirect refers to the introduction of new technologies and increased health and safety requirements creating a need to upgrade workers' skills. In these cases the studies identified the need for skills that would enable the workforce to participate in, and benefit from, training or upgrading. The following table shows the references to non-technical skills in each of the construction trade studies.



Trade	Direct Reference	Indirect Reference
Carpenters	<ul style="list-style-type: none"> ■ Refresher training is needed in basic math, reading, blueprint reading. 	
Cement Finishers	<ul style="list-style-type: none"> ■ Need to promote upgrading training in basic math. ■ There are significant gaps in the basic skills of the workforce e.g. blue print reading. 	<ul style="list-style-type: none"> ■ New concrete mixtures, additives, placement systems and safety are making the job more demanding and requiring more specialized training.
Electricians		<ul style="list-style-type: none"> ■ Constantly changing technology requires ongoing skills upgrading. ■ Need to build consensus on the importance of life-long learning.
Floor Covering Installers	<ul style="list-style-type: none"> ■ The industry needs to expand its capacity to provide upgrading training particularly in areas such as language, basic business skills, legal matters, bidding and trade math. 	<ul style="list-style-type: none"> ■ Need mechanism to help keep the industry current on new floor covering products, systems, adhesives and materials.
Ironworkers	<ul style="list-style-type: none"> ■ New technology is creating a need for well developed literacy and numeracy skills, and the capacity to quickly understand and apply complex technical information. ■ Need for ongoing training in reading blueprints and drawings. 	

Trade	Direct Reference	Indirect Reference
Labourers	<ul style="list-style-type: none"> Need to increase literacy and math upgrading to respond to widespread weakness in basic reading and math. 	
Millwrights		<ul style="list-style-type: none"> New technologies necessitate the need to keep training current.
Operating Engineers	<ul style="list-style-type: none"> Need to integrate basic skill training into training activities. 	
Pipe Trades	<ul style="list-style-type: none"> Need for increased cognitive skill levels driven by new technologies. Requirement for upgrading of management skills including "soft" skills such as negotiation, client relations, dispute resolution, personnel management and others. 	<ul style="list-style-type: none"> Computers and communications technology are impacting the office operations and the linkages between the office and the job-site. Skills of some of the older workforce will need to be updated to ensure they are able to earn an adequate income.
Residential		<ul style="list-style-type: none"> The introduction of new technologies creates a need for skill upgrading to keep skills current.
Roofers	<ul style="list-style-type: none"> Roofing workforce has a limited base of communications and math skills and little familiarity with computers. There is a growing need for skilled team leaders. 	
Sheet Metal Workers	<ul style="list-style-type: none"> Workforce has moderate base of communications skills, reasonably advanced math skills and limited familiarity with computers resulting in an urgent need for upgrading. There is a growing need for skilled team leaders. 	<ul style="list-style-type: none"> The introduction of new information technology, materials, environmental requirements and building systems are requiring new and sophisticated skills. Large demand for upgrading the skills of the existing labour force.



Developments in Essential Skills in Construction

From the late 1980s to the present, the Government of Canada has been supporting Essential Skills work involving the construction industry at the local, provincial, and national level. The following trades have been involved in projects:

Carpenters	Masonry
Electrical	Operating Engineers
Ironworkers	Pipe Trades
Labourers	Roofers

The projects have focused on:

- Developing Essential Skills profiles;
- Integrating Essential Skills training into technical trade training;
- Developing Essential Skills training modules;
- Developing tests to assess Essential Skills;

- Developing an instructional model for workers with low literacy levels; and
- Promotion of Essential Skills to the workforce.

These initiatives will help to drive various components of the CSC strategy to strengthen Essential Skills across the industry.

Industry Consultation

Prior to developing this Essential Skills strategy, the CSC consulted with industry representatives to determine what they felt needed to be done to ensure every construction worker has the Essential Skills required. It was determined that an Essential Skills workshop would provide the means to explore this issue with the construction industry. The objectives of the workshop were to:

- Increase industry awareness of Essential Skills activities and best practices;
- Obtain industry direction regarding Essential Skills and possible roles for the CSC; and
- Develop an Essential Skills strategy document to guide future work of the CSC.

What we learned:

The workshop participants identified several issues and actions required to facilitate the development of required Essential Skill levels in the construction industry. The key issues and actions are summarized in the following table.


Role for the Construction Sector Council

The consultation with industry representatives provided several suggestions concerning the role the CSC could play in furthering developments in Essential Skills. This confirmed the need for a national strategy and provided the framework for the strategy outlined in this document.



Issues in ensuring every construction worker has the Essential Skills required	Actions required that needs to be taken to address the issues identified
<p>Lack of awareness The lack of awareness of what Essential Skills are and the importance of these skills to individuals and employers was identified as a major issue. It was also noted that there is a lack of understanding among teachers and the general public as to how central Essential Skills are to the construction trades.</p>	<ul style="list-style-type: none"> ■ Get the message out about what Essential Skills are ■ Get “buy-in” from: <ul style="list-style-type: none"> Parents Employers Government Educators Journeypersons/apprentices
<p>Fear factor Many people spoke of the fear present in those with lower levels of Essential Skills and how this impacts employee willingness to participate in training. It creates a challenge in determining individual needs as people who lack reading skills are very skilled at disguising it. The lack of trust and a “safe environment” presents a significant barrier to increasing the levels of Essential Skills within the workforce.</p>	<ul style="list-style-type: none"> ■ Address psychological and other barriers to learning ■ Find means to create a “safe” learning environment
<p>Lack of mentoring A lack of on-the-job and in-school mentoring was cited as impacting Essential Skills. Apprenticeship training relies heavily on the transfer-ence of skills from journeyman to apprentice. The development of effective mentoring relationships could assist in encouraging individuals who lack Essential Skills to come forward for training. Also to be effective mentors requires strong Essential Skills.</p>	<ul style="list-style-type: none"> ■ Introduce a mentoring program to teach coaching skills to trades people who train others.
<p>Funding support A lack of sufficient dedicated funding for the development of assessment tools and training delivery materials was cited as a need in the field of Essential Skills.</p>	<ul style="list-style-type: none"> ■ Make funding more readily accessible ■ Target funding to people who are working and those who are not
<p>Responsibility and accountability A lack of clarity or differing views around who is responsible for Essential Skills development is hindering progress towards a workforce that possesses the required skills.</p>	<ul style="list-style-type: none"> ■ Put in place a structure to oversee responsibilities for: <ul style="list-style-type: none"> Funding Implementation Delivery ■ Pool resources to ensure a consistent pan-Canadian effort and cost efficiency ■ Create resources that are available to everyone ■ Support greater collaboration and resource sharing through a clearing-house function ■ Recognize existing “best-practices” for assessing Essential Skills and put them to use





The Construction Sector Council (CSC) is a national organization committed to the development of a highly skilled workforce – one that will support the current and future needs of the construction industry in Canada.

Created in April 2001, and financed by both government and industry, the CSC is a partnership between labour and business. The CSC is governed by a Board of Directors who represent a variety of interests within the construction industry. At the heart of the CSC's mandate is the need to address human resource issues through partnerships within the construction industry.

Like many industries, the construction industry faces a number of human resource challenges. These include the need to accurately forecast labour demand and supply; to increase the mobility of workers; to help create new opportunities for long-term sustainable employment and continuing job creation; to make the most of new technologies; and to cope with an aging workforce. As a result, the CSC has identified four key priorities:

- Labour Market Information
- Technology at Work
- Career Awareness Programs
- Standards and Skills Development

This document is part of the CSC's efforts to improve standards and skills development in the construction industry. It is also available in French, and it is available electronically at www.csc-ca.org. For more information, or additional copies of this document, contact:

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