President’s Message

Dear Friends,

As I write this message, the Canadian Centre for Women in Science, Engineering, Trades and Technology is just over three years old. Much has been accomplished since then and the Board of the Centre recognized that it was an appropriate time to develop a five-year Strategic Plan for the Centre. This document is the result of assiduous work of the sub-committee struck for that purpose: Elisabeth Theriault, chair, Hiromi Matsui, Gloria Montano, Marg Latham, Lianne Lefsrud, and Catherine Hammond. On behalf of the Board, I extend my sincere thanks to them and to Chrystal Palaty who took on the task of preparing the document.

This Plan captures the “reason for being” of the WinSETT Centre and its strategic priorities to achieve success. It is the forerunner of an Operational Plan which will describe the activities of the Centre to meet the priorities.

It is an opportune time for the WinSETT Centre to be active. We envision women as full participants in the Science, Engineering, Trades and Technology fields, and workplaces which are inclusive and respectful of all their employees. These goals are more likely to be achieved now that the Business Case for having women in leadership positions has been receiving much publicity. We look forward to continuing to work in partnership with the member groups of the Canadian Coalition of Women in Science, Engineering, Trades and Technology, with the NSERC Chairs for Women in Science and Engineering, and with all interested stakeholders to make our shared vision a reality.

Sincerely,

Margaret-Ann Armour CM, PhD, FCIC
Founding President of the WinSETT Centre
Associate Dean of Science, Diversity, University of Alberta

“The mind-sets—and aspirations—of women themselves are as important as those of the companies that employ them.”

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About the WinSETT Centre
The Canadian Centre for Women in Science, Engineering, Trades and Technology (WinSETT Centre) is an action-oriented, non-profit organization that aspires to recruit, retain and advance women in science, engineering, trades and technology. The WinSETT Centre was established in 2009 after regional consultations and three national forums with key stakeholders including women in science, engineering, trades and technology.

Vision: A world where women participate fully in science, engineering, trades and technology.

Mission: Through collaboration and partnership, the WinSETT Centre creates and fosters opportunities that encourage women to enter, stay and grow in science, engineering, trades and technology careers, with the goal of maximizing Canada’s human resource potential, increasing innovation, and driving Canadian economic development.

Values: Collaboration, Equity, Inclusion, Fairness and Respect.

What the WinSETT Centre does: The WinSETT Centre takes a national focus on advocating for women’s full inclusion in science, engineering, trades and technology workplaces and fosters links between academia, industry, governments, associations, unions, and non-governmental organizations. The WinSETT Centre creates and fosters opportunities to advance women’s leadership in the technically skilled workforce by:

- Delivering workshops to advance the retention and leadership of women in science, engineering, trades and technology fields and to create a positive culture for women in the workplace;
- Partnering on specific projects with like-minded organizations such as the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) member groups; and
- Promoting and celebrating the leadership of women in science, engineering, trades and technology organizations and as role models and mentors.

The WinSETT Centre delivers high value workshops as part of its Women in SETT Leadership Program to advance the retention and leadership of women in these fields and to create a positive culture for women in the workplace. The Program (in 2012) includes: Becoming Leaders: An Introduction to Leadership Skills and Strategies; Negotiating for Success: Effective Communication for Women in Science, Engineering, Trades and Technology; Toward an Inclusive and Respectful Workplace; and Strategic Leadership for Diversity Innovation. A suite of additional workshops is under development. The WinSETT Centre also delivers Welcoming Women into Science, Engineering, Trades and Technology Workplaces: A Checklist of Strategies Workshops for trades employers and associations.

“Diversity can work but we have to work at it.”2
**Why the WinSETT Centre: Addressing the Need**

Women are 47.4% of the employed workforce but are only 10.5% of professional engineers and 4.0% of skilled construction trades.\(^3\)\(^4\) Thus, the full potential of women in these fields has not been realized.

A recent Organization for Economic Cooperation and Development report (2012) confirms that gender gaps are pervasive in all walks of economic life and imply large losses in terms of foregone productivity and living standards to the individuals concerned and the economy.\(^5\) Recent data from Engineers Canada indicate that women were 17.7% of the undergraduate engineering student enrolment in 2011 and 10.5% of licensed engineers, but very few have reached senior management in engineering firms.\(^4\) Analyzing Statistics Canada data, in 2011 the Conference Board of Canada showed the proportion of women in senior management had remained the same over a 22-year period, while the proportion of women in middle management actually declined over the last 12 years of the study.\(^6\)

**HUMAN RESOURCE SOLUTIONS.** Canada’s changing economy and aging labour force have resulted in significant skills shortages within the science, engineering, trades and technology sectors. While women make up almost half of Canada’s workforce, they are still largely under-represented and are the largest untapped human resource in these sectors. Enhancing the participation and leadership of women in the technically skilled workforce will generate even greater positive impacts in our knowledge-based, technological and highly competitive global economy.

**INCREASED INNOVATION CAPACITY.** “We live in a global economy where the quality of our workforce is the primary basis for competitiveness. Why would we choose to underutilize the talents of half our workforce?”\(^6\) Different types of thinking stem from different dimensions of diversity: the more demographically, functionally and culturally diverse the employee base is, the more innovative the company can be. The benefits of a diverse and inclusive workplace accrue not only to private and public sector organizations but also to the provinces and territories and to Canada as a whole. Satisfying, well-compensated jobs in science, engineering, trades and technology fields bring economic security to individual women, their families and their communities.

“Across geographies, we find that a wholly committed senior leadership, active talent management, and more effective efforts to shift mind-sets and change behavior can transform the gender agenda.”\(^1\)
**ECONOMIC DEVELOPMENT.** In recent years a number of research studies have found strong correlations between organizations with women in leadership positions and higher economic profitability. A 2011 Catalyst study found that the Fortune 500 companies with the most women on boards of directors outperformed those with the least on return on sales by 16% and on return on invested capital by 26%. In 2012 the Credit Suisse Research Institute reported that net income growth for companies with women on their boards has averaged 14% over 2005-11, compared with 10% for those with no female directors. Women’s increased participation and advancement in the technically skilled workforce will also accrue significant economic benefits to Canada as a whole. A statement by the World Economic Forum underscores the opportunity for increased national growth: “Countries that do not capitalize on the full potential of one-half of their societies are misallocating their human resources and compromising their competitive potential.”

The need for, and benefits of the full participation of women in the technically skilled workforce has long been recognized by many, including CCWESTT member groups, Engineers Canada, provincial and territorial associations of Professional Engineers and Geoscientists, and the Natural Sciences and Engineering Research Council Chairs for Women in Science and Engineering. The WinSETT Centre is unique and well positioned and is pro-actively working to reinforce those benefits by serving as an important resource for all these groups moving toward common goals.

In 2012 Statistics Canada reported that the mining, quarrying and oil and gas sector had the highest job vacancy rate in the country, reflecting high demand and competition for skilled workers. A 2012 report from CIBC also highlighted growing skills shortages in mining, engineering and science occupations.

With its resource-based economy, Canada has the potential to weather the current economic downturn and weak economic forecasts that plague other world economies. In order to succeed in the new global economy, however, Canada must ensure that it has a strong technically skilled workforce. Fortunately, many Canadian companies are recognizing that organizational gender diversity has strategic value and is the key to stability, strength and innovation.
WinSETT Centre Strategy Map

Vision
A world where women participate fully in science, engineering, trades and technology.

WinSETT Centre Strategy

Through collaboration and partnership, increase the leadership of women at all levels in the science, engineering, trades and technology workforce

Be recognized as a national resource on matters relating to women in science, engineering, trades and technology

Mission
Through collaboration and partnership, the WinSETT Centre creates and fosters opportunities that encourage women to enter, stay and grow in science, engineering, trades and technology careers, with the goal of maximizing Canada’s human resource potential, increasing innovation, and driving Canadian economic development.

WinSETT Centre

Achieve sustainability
Strategic Priorities 2013-2018

The WinSETT Centre has identified the following three Strategic Priorities for action over the next five years:

1. Through collaboration and partnership, increase the leadership of women at all levels in the science, engineering, trades and technology workforce.

2. Be recognized as a national resource on matters relating to women in science, engineering, trades and technology.

3. Achieve sustainability.

The WinSETT Centre will focus its efforts over the next five years on activities that support these strategic priorities and on developing the means to measure and report on progress in achieving them.

Through collaboration and partnership, increase the leadership of women at all levels in the science, engineering, trades and technology workforce.

Strengthening women’s leadership in science, engineering, trades and technology occupations increases the recruitment, retention and advancement of other women in organizations and helps to change the culture of the workplace. The WinSETT Centre takes a “lead where you are” approach, focusing on training and empowering women at all levels in an organization to become leaders, rather than focusing only on women in formal leadership roles.

The WinSETT Centre aims to increase this participation and advancement by continuing to promote effective practices and develop new approaches to create and sustain a positive place for women in the workforce. These include:

- Providing leadership workshops to women in science, engineering, trades and technology occupations in industry, associations and academia, and offering inclusivity/diversity workshops for employers.
- Leveraging modern technology and developing infrastructure to create opportunities and to catalyze transformative change. These include “Future Leaders” programs to continue conversations nationally.
- Develop resources and actions to support respectful and inclusive workplaces. These initiatives include connecting with employers to create employment opportunities for Canadian women across the citizenship spectrum.
“Encouragingly, the research shows that a growing number of women, both in senior roles and among the rank and file, are finding their voices and inspiring others to achieve progress.”¹

**Be recognized as a national resource on matters relating to women in science, engineering, trades and technology.**

The WinSETT Centre has been successful in establishing partnerships with governments, industry and professional groups, and we have proven our stature as a national resource. WinSETT Centre representatives have testified at two Parliamentary Standing Committees of the House on Women’s Issues, and were appointed to various delegations including the Canadian delegation to the Commonwealth meetings of Ministers Responsible for Women, the United Nations, and the Asia-Pacific Economic Council. Representatives have also served by invitation on advisory committees and task forces at the local, provincial and national levels. The WinSETT Centre embraces these unique opportunities and is working to realize the benefits of serving as an important resource on matters relating to women in technically skilled fields, nationally and internationally.

The WinSETT Centre aims to:

- Create and amplify effective employment practices for science, engineering, trades and technology organizations.
- Build a credible and accessible on-line source of pertinent resources, tools and reports.
- Develop traditional and social media communications strategies including the promotion of science, engineering, trades and technology leaders in sector publications.

**Achieve sustainability.**

The WinSETT Centre needs to achieve sustainability in order to support Canadian women in the technically skilled workforce and to continue to be a national resource. The growing self-sustainability of the WinSETT Centre will be based, in part, on income derived from tools and services, including revenue from professional development workshops, coaching sessions and fees for services such as policy assessment.

To achieve sustainability over the next five years the WinSETT Centre will:

- Develop and implement a revenue-generation model including a cost-recovery model to cover expenses.
- Continue to partner with federal, provincial and territorial governments, industry, organizations, associations, postsecondary institutions, unions, the CCWESTT member groups, and other stakeholders to identify and meet areas of mutual need.
- Work to develop a process through which the collective power of women’s organizations in science, engineering, trades and technology can be effectively focused for maximum impact and benefit.
Summary and Closing Remarks

The WinSETT Centre has undertaken an ambitious plan to enable the full participation of women in science, engineering, trades and technology. The outcomes of our vision have the potential to positively impact Canada’s human resource capacity, to foster innovation and lead to greater economic prosperity – for individuals and their families, organizations and our Nation.

The WinSETT Centre recognizes that the most important element as we move forward is the engagement, participation, cooperation, and support from women employed/engaged in science, engineering, trades and technology across Canada. Our vision is that this plan and our articulated Strategic Priorities support and enable women to fully participate in the technically skilled Canadian workforce.

“For organizations that foster gender diversity at all levels of the organization, the rewards are great - bottom-line results, lower turnover and employment branding that is attractive to talented, successful women – the kind of employees that all Canadian organizations seek.”12
Governance and Management

The WinSETT Centre currently has a Board of Directors of 14 individuals to oversee and guide its operations.

**Executive Committee (2015):**

- **Margaret-Ann Armour**, CM, PhD, FCIC, President
  - Associate Dean of Science for Diversity, University of Alberta

- **Valerie Davidson**, PhD, PEng
  - Past NSERC/RIM Chair for Women in Science and Engineering for Ontario
  - Professor Emerita, University of Guelph

- **Elizabeth Theriault**, PhD, Secretary
  - Assistant Scientific Director, CIHR Institute for Neurosciences, Mental Health and Addiction, University of British Columbia

- **Catherine Hammond**, CMA, Treasurer
  - Treasurer, WinSETT Centre, CCWESTT

**Members:**

- **Kim Andreas**, Red Seal Journeyperson Millwright
  - President, CCWESTT
  - Millwright

- **Nan Armour**
  - Past President, CCWESTT
  - Executive Director, Hypatia Association

- **Joy Brown**, MSc Geoph
  - Sr. Geoscientist, TAQA North

- **Susan King**, PhD, PEng
  - Technical Writer

- **Marg Latham**, PEng, CMC
  - President, Aqua Libra Consulting Ltd

- **Lianne Lefsrud**, PhD, PEng
  - Assistant Professor, Faculty of Engineering
  - University of Alberta

**Administration Coordination:**

- **Jane Robinson**, MA
  - President, Jane Robinson Consulting

**Leadership Program Coordinator & National Facilitator:**

- **Susan Hollett**, MSc, CPF
  - President, Hollett & Sons Inc.


**CCWESTT Member Groups**

**British Columbia**
Division for the Advancement of Women in Engineering and Geoscience (DAWEG/APEGBC)
Society for Canadian Women in Science and Technology (SCWIST)

**Yukon**
Yukon WITT (Women in Trades and Technology)

**Alberta**
Women in Scholarship, Engineering, Science and Technology (WISEST)
Alberta Women’s Science Network (AWSN)
Women Building Futures (WBF)

**Saskatchewan**
Association of Professional Engineers & Geoscientists of Saskatchewan
Faculty of Engineering & Applied Science, University of Regina
Saskatchewan Women in Trades and Technology (SaskWITT)
SaskPower Women's Resource Group

**Manitoba**
Association of Professional Engineers and Geoscientists Manitoba (APEGM)

**Ontario**
Simcoe County Women in Trades and Technology
Status of Women in Science Committee (Brock University)

**Québec**
l'Ordre des Ingénieurs du Québec, Comité, femmes en génie

**Nova Scotia**
The Hypatia Association

**Prince Edward Island**
Women’s Network PEI

**Newfoundland and Labrador**
Women in Science and Engineering Newfoundland and Labrador (WISE NL)
Women in Resource Development Corporation (WRDC)

**Canada**
Canadian Association for Girls in Science (CAGIS)
Engineers Canada
Canadian Engineering Memorial Foundation
Representatives of the NSERC/Industry Chairs for Women in Science and Engineering
History of the WinSETT Centre and organizations involved in early consultation

The WinSETT Centre first emerged as a project of the Canadian Coalition of Women in Science, Engineering, Trades and Technology (CCWESTT), the organization that held the consultations and national forums leading to the establishment of the WinSETT Centre.

The WinSETT Centre consultation meetings were held across the country in St. John’s, Newfoundland (November 2003)\(^1\), Toronto, Ontario (December 2003)\(^2\), Vancouver, British Columbia (January 2004)\(^3\), Ottawa, Ontario (April 2004 National Forum and SETT Leaders Breakfast, and November 2004 Spotlight on Canada: Women in Science, Technology and Trades Roundtable)\(^4\), and Calgary, Alberta (June 2006 Women in SETT National Stakeholders’ Forum)\(^5\).

The WinSETT Centre was incorporated nationally as a not-for-profit organization in December 2009 and launched nationally at the 13th CCWESTT National Conference in Winnipeg in May 2010.

The organizations and forum participants that were consulted are listed below, with the number in brackets indicating the meeting(s) attended. Many of the organizations below have partnered with WinSETT on some of the ongoing initiatives.

**Government Agencies**
- AB Apprenticeship & Industry Training Board (5)
- AB Research Council (5)
- Bedford Inst. Of Oceanography (1)
- Canadian Space Agency (2)
- Dep’t Resources, Wildlife & Economic Development (3)
- Environment Canada (2,3)
- Environmental Planning & Management Projects (1)
- Foreign Affairs and International Trade (3)
- Government of Canada (3)
- Government of NL (1)
- Health Canada (3)
- Human Resources and Development Canada (3)
- HRDC Regional Office (3)
- Human Resources and Skills Development (3)
- Indian & Northern Affairs Canada (3)
- Industry Canada (3)
- Infrastructure Canada (3)
- Inst. For Human Resource Development (3)
- Institute of Gender and Health (4)
- NS Adv. Council on Status of Women (1)
- NS Dep’t of Education (5)
- Natural Sciences and Engineering Research Council of Canada (3)
- Ontario Women’s Directorate (2)
- Ottawa Centre for Research & Innovation (3)
- PM’s Task Force on Women Entrepreneurs (3)
- Science & Engineering Research Canada (4)
- Senate of Canada (5)
- Standing Committee on S&T (3)
- Status of Women Canada (3)
- Women’s Policy Office, Gov’t NL (1)

**Business/Industry**
- Aliant (1)
- Ann Holmes & Associates (2)
- AppleCore Communications (1)
- BC Hydro, Generation (3)
- Business Consulting Services, IBM Canada (3)
- ConocoPhillips Canada (5)
- Credo Interactive (3)
- Creighton Mine, INCO Ltd. (2)
- Golder Associates Ltd. (3)
- Hibernia Management and Development Corp (1)
- Horizon Engineering (3)
- Husky Energy (1,3)
- Hydro-Québec Trans-Énergie (3,4)
- IBM Canada (2)
- IBM Global Services (5)
- INCO Ltd. (4)
- InCore Tec Inc. (1)
- Jacques Whitford Environment Ltd. (3)
- Jellett Biotek (1)
- Iron Ore Company of Canada (3)
- Petro-Canada (1)
- Shell Canada Ltd. (5)
- Syncrude Canada (5)
- UMA Group (3)
- Inst. for HR Development (1)
**Sector Councils/Professional and Sector Associations**
- Aboriginal HR Development Council of Canada (3,5)
- Alliance of Sector Councils (3)
- APEGA (3)
- APEGM (3)
- Applied Science Technicians and Technologists BC (3)
- Can. Council of Professional Engineers (2, 3,4,5)
- Canadian Apprenticeship Forum (3)
- Canadian Construction Association (3)
- Canadian Council for HR in Environment Industry (3)
- Canadian Council of Technicians & Technologists (3)
- Canadian Engineering Memorial Fdn. (2)
- Canadian Labour and Business Centre (3)
- Canadian Technology Human Resources Board (3)
- Canadian Automotive Repair and Service Sector Council (3)
- Communications Research Centre Canada (3)
- Construction Sector Council (3)
- Div’n to Advance Women in Engineering and Geoscience (APEGBC) (3)
- Installation, Maintenance and Repair Sector Council (3)
- National Women’s Reference Group (3)
- Professional Engineers & Geoscientists NL (1)
- Software Human Resource Council (3,5)

**Post-Secondary Institutes**
- Association of Universities and Colleges of Canada (3)
- Athabasca University (1)
- BC Institute of Technology (3)
- Brock University (2)
- Capilano College (3)
- Carleton University (3)
- Canadian Ass’n of University Teachers, Status of Women Ctte (3)
- École Polytechnique (3)
- Faculty of Education, UBC (3)
- Fanshawe College (2)
- Guelph University (2)
- Holland College (1)
- Kwantlen University College (3)
- McGill University (5)
- Memorial University (1)
- Queens University (3)
- Ryerson University (2)
- Saskatchewan Inst. Applied S &T (3,4,5)
- Simon Fraser Univ. (1,2)
- Southern Alberta Institute of Technology (5)
- Université de Moncton (1)
- Université Laval (3)
- University College of Cape Breton (1)
- University of Alberta (1)
- University of British Columbia (3)
- University of Calgary (3)
- University of PEI (1)
- University of Saskatchewan (3)
- University of Toronto (2)

**Unions**
- Canadian Auto Workers (2)
- Canadian Labour Congress (1)
- United Steel Workers of America (2,3)
- Women’s Dept., CAW (3)

**Non-Government Organizations**
- Canadian Assoc. for Girls in Science (2)
- CCWESTT (1,2,3,4, 5)
- Community MicroSkills Development Centre (2)
- Conference Board of Canada (3)
- Hypatia Project (1)
- Immigrating Women in Science (1)
- Let's Talk Science (2)
- Society for Canadian Women in Science and Technology (1,4)
- Skills for Change (3)
- Society of Women Engineers (3)
- WISE NL (1,3)
- WISE Ottawa (2)
- WISE Toronto (2)
- Women in Trades and Technology NL (1)
- Women Building Futures (3,5)
- Women in Global Science & Technology (2)
- Women in Motion (2)
- Women in Resource Development Corp. (1,3,4,5)
- Women Inventors Project (2)
- UK Resource Centre for Women in SET (5)
WinSETT Centre Support 2003-2012

Major Funding Partners

Status of Women Canada
Employment and Immigration, Government of Alberta
Suncor Energy
Association of Professional Engineers and Geoscientists of Alberta
NSERC/Petro-Canada Chair for Women in Science and Engineering, Atlantic Region
Children and Youth Services, Government of Alberta
Suncor Energy Foundation
Fueling the Future – Women in Oil and Gas Conference Legacy Fund
Natural Sciences & Engineering Research Council of Canada
WorleyParsons

Other Sponsors & In Kind Support

Association of Professional Engineers & Geoscientists British Columbia
BC Hydro
Canadian Heritage
Applied Science Technologists & Technicians of BC
Association of Professional Engineers & Geoscientists, Manitoba
ConocoPhillips Canada
Division for Advancement of Women in Engineering & Geoscience (APEGBC)
Engineers Canada
Federal Science and Technology Community
Georgian College
Professional Engineers & Geoscientists Newfoundland and Labrador
Shell Canada
Stantec
TAQA North
Telus
University of Alberta
Urban Systems
Vale
Western Economic Diversification Canada

“If Canada is to excel in the global knowledge-based economy, we have to call upon our strengths to build and maintain a strong, entrepreneurial science culture that maximizes ALL of our human resources.” – Arthur J Carty, Canada’s Former National Science Advisor
References


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