manufacturing
Safety Alliance of BC

BC Manufacturing Sector Labour Market Partnership

Phase 1 Engagement Final Report | July 7, 2016

Prepared for
The British Columbia Ministry of
Jobs, Tourism, and Skills Training

Prepared by
Manufacturing Safety Alliance of BC

Canada

British Columbia

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

DISCLAIMER

The views and opinions expressed in this report are those of the project partners and do not necessarily reflect the official policy or position of the B.C. government.

Table of Contents

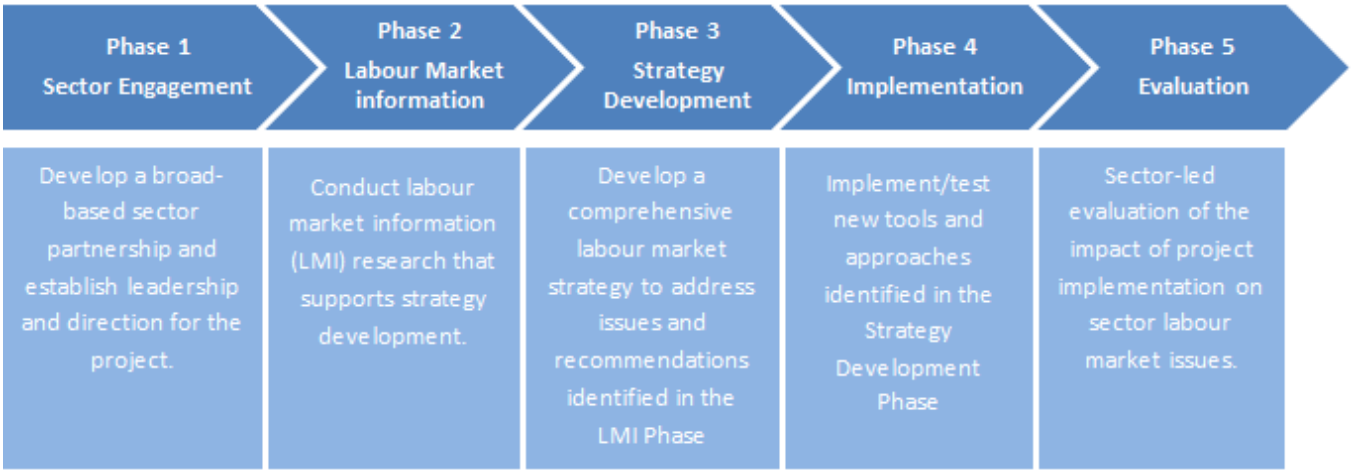
Introduction and Scope

The Manufacturing Safety Alliance of BC, formerly known as FIOSA-MIOSA Safety Alliance of BC (hereafter, the Alliance), has entered into an agreement through a Sector Labour Market Partnership (LMP) with the Ministry of Jobs, Tourism and Skills Training (hereafter, the Ministry).

The purpose of this Sector LMP is to bring together key organizations within BC's manufacturing industry to achieve a clear consensus and direction on the number and skill levels of occupational health and safety (OHS) professionals required within this sector within the next 5 years. Once those gaps have been identified through labour market information research, appropriate interventions will be determined through sector partnerships appropriate to the manufacturing sector.

The Sector LMP program has five distinct phases: Sector Engagement, Labour Market Information, Strategy Development, Implementation, and Evaluation. Each phase must be approved by the Ministry after submission of a formal proposal detailing objectives, budgets, timelines and deliverables.

The diagram below outlines this multi-phase approach to the Sector LMP.



About the Manufacturing Safety Alliance of BC

The Alliance is a not-for-profit industry association established in 2007 to address OHS challenges and opportunities specific to BC's manufacturing industry. The Alliance's mandate to reduce the high injury rate in manufacturing is reflected in its mission, vision and values. The Alliance is well-positioned to lead a partnership initiative aimed at improving OHS through education, services and training within the manufacturing sector.

During 2015, the Alliance provided OHS support to over 2,100 manufacturers in 42 industry sub-sectors within BC. At the end of 2015, the Alliance expanded its support to an additional 1,000 employers within the manufacturing sector through a WorkSafeBC pilot that provides OHS services to a group of high-risk employers. In total, the Alliance represents approximately one quarter of all manufacturing firms in BC.

The manufacturing Sector LMP builds on the solid foundation which the Alliance has put in place. Furthermore, the Sector LMP aligns with the Alliance's health and safety services strategy, which focuses on the development and delivery of high quality programs, services and tools through innovation, collaboration and the promotion of best practices.

OHS Background

The International Labour Organization defines occupational health and safety (OHS) as "the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment."[1]

As a science, OHS has had to respond to the steady onslaught of changes transforming the work of work. These range from the massive shift to a service-based knowledge economy, the information technology revolution, globalization, and increasingly diverse workforce demographics. As a result, the scope of OHS expertise has greatly expanded to incorporate rapid advances in our understanding of the causes and consequences of occupational disease, disability and injury.[2]

[1] Ali, B.O. (2008). Fundamental Principles of Occupational Health and Safety, 2nd edition. International Labour Organization, p. vii. http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_093550.pdf

[2] See for example the applied OHS research conducted by the Toronto-based Institute for Work and Health. https://www.iwh.on.ca/

Today, the OHS profession is multi-disciplinary, including occupational and environmental medicine, epidemiology, workplace health and safety, occupational and industrial hygiene, and ergonomics. These professionals advise policy-makers and industry on a broad range of occupational health and safety issues, including workplace risk and hazard assessment, injury and fatality prevention, effective return to work practices for injured workers, and the associated human and business costs of unsafe and unhealthy workplaces. Increasingly, the roles of worksite OHS professionals requires knowledge of, and collaboration with, other disciplines including sustainability, environmental protection, product safety, emergency response, security, rehabilitation and mental health, law and insurance.[3]Every Province, Territory and the federally-regulated jurisdiction has legal requirements for the provision of an occupational health and safety program in every workplace. Failure to comply with these requirements can result in financial penalties and/or imprisonment. Employers have a clear legal responsibility to provide their employees and contractors with a workplace free from risks and hazards. In 2003, the Criminal Code of Canada was amended to require employers, managers, supervisors and others to take reasonable steps to prevent bodily harm to any person arising out of work or a specific task. Failure to do so can result in criminal prosecution, legal conviction and imprisonment.

Now, an employer's duty to provide a safe work environment includes psychological, as well as physical, safety. The Mental Health Commission of Canada partnered with the Canadian Standards Association in 2013 to launch the voluntary National Standard of Canada for Psychological Health and Safety in the Workplace – thereby further expanding the scope of OHS.[4] This has been reflected in the growing recognition by workers' compensation boards across Canada of stress caused by work-related traumatic events, harassment or bullying as a compensable injury.

Several decades ago, the OHS role was largely confined to technical compliance – that of "safety cops" – to ensure that legislated standards were being met. Today, an effective OHS professional must not only advise their employer on prevention and promotion practices using a much larger evidence-base, they also must be able to influence, engage and coach managers, employees and joint health and safety committees on how to create and maintain a safety culture. While a focus on regulatory compliance to meet legislated minimum health and safety standards remains important, the OHS profession is shifting to a more preventative and holistic approach. As a result, OHS professionals require interpersonal, management, industry and technical skills directly relevant to the nature of the business. Equipped with these skills, they can be strategic partners able to advise senior management on the development, maintenance and continual improvement of the organization's OHS management system.

[3] International Network of Safety and Health Practitioner Organizations (October 2015). The OHS Professional Capability Framework: A Global Framework for Practice.
4 Mental Health Commission of Canada. http://www.mentalhealthcommission.ca/English/national-standard

Manufacturing Sector Background

The North American Industry Classification System (NAICS) defines the manufacturing sector as consisting of establishments primarily engaged in the chemical, mechanical or physical transformation of materials or substances into new products, either durable or non-durable. These products may be finished, in the sense that they are ready to be used or consumed, or semi-finished, in the sense of becoming a raw material for an establishment to use in further manufacturing. Related activities (such as the assembly of the component parts of manufactured goods, the blending of materials, and the finishing of manufactured products by dyeing, heat-treating, plating and similar operations) also are treated as manufacturing activities. Manufacturing establishments are known by a variety of trade designations, such as plants, factories or mills.[5]

It is important to note that this broad definition of manufacturing conforms to the Alliance membership and to the reporting of OHS statistics by WorkSafeBC.

Manufacturing plays a key role in BC's economy.[6] It accounts for a large share of the provincial GDP and provides a substantial number of well-paying, full-time jobs. In 2014, the manufacturing sector contributed $14.7 billion to the BC economy.[7] It is a growing sector, with capital investments since 2012 outpacing manufacturers in other provinces.

Furthermore, the manufacturing workforce is growing in BC, from 151,700 workers in 2013 to 172,500 in 2015.[8] Manufacturing accounts for over 7% of the provincial workforce. By 2024, it is projected to have 57,000 job openings, with 14% due to economic expansion and 86% due to replacement. The competition for workers and the shortage of OHS professionals may expand beyond the manufacturing sector and be a larger challenge than originally anticipated. This could be compounded by an aging worker force and general worker shortages.

Unique Characteristics

The manufacturing sector's workforce and employer characteristics define the unique health and safety needs of the sector. If these unique needs are not adequately addressed, they will present future risks to the success of BC's manufacturing firms.

[5] http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118465&CPV=31-33&CST=01012012&CLV=1&MLV=5 .
[6] BC Stats. (2015). A Profile of British Columbia's Manufacturing Sector, Prepared for Ministry of Jobs, Tourism and Skills Training.
[7] Province of British Columbia, BC's Key Economic Sectors. http://engage.gov.bc.ca/bcjobsplan/economy/manufacturing/.
[8] Statistics Canada. (2016). Statistics Canada, CANSIM Table 282-0008.

In terms of its demographics, BC's manufacturing workforce is predominantly male (only 26% of manufacturing employees are female, compared with a provincial average of 48%), older than average and rapidly aging (close to 1 in 4 manufacturing workers are age 55 or older, compared with 1 in 5 in the provincial workforce), and predominantly full-time employees (93% of manufacturing jobs are full-time, compared with 78% in the provincial workforce as a whole). Information on first-language, cultural background, literacy skills, educational levels and other safety-relevant demographics are not readily available. However, these factors will be investigated within Phase 2 of the project (if approved by the Ministry). New OHS training programs relevant to manufacturing must respond to these changing workforce demographics.

Regarding employer characteristics, what is most relevant from an OHS perspective is the predominance of small employers in the manufacturing sector. In 2014, there were 7,275 manufacturing firms with at least one employee. Approximately 40% of manufacturing firms have one to four employees and only 22% of firms employ 20 or more workers. There are very few large firms with 100 or more employees. This picture of manufacturing is consistent with the larger provincial economy. According to BCStats, 98% of all businesses in the province have less than 50 employees and approximately four out of every five of those employers are "micro-businesses" with fewer than five employees.9

Injury Rates

The BC manufacturing sector's lost-time injury rate (LTI) is higher than other industries in BC, having climbed steadily between 2010 and 2012 and more steeply between 2012 and 2013. During this period the LTI for all BC employers remained constant. Note that the injury rate considers all injuries that result in time loss and is quantified by the number of claims for every 100 workers.

While there was a slight decline in the manufacturing LTI between 2013 and 2014 (the latest year for which data are available), from 3.4 to 3.2 injuries per 100 workers, it was still well above the BC average of 2.3.[10]

Within the overall injury rate statistics, WorkSafeBC also tracks the serious injury rate. Serious injury rate considers all injuries that represent a serious or potentially serious medical diagnosis with a recovery period of 10 or more weeks off work and includes all fatal injuries. A serious injury is an injury that can reasonably be expected at the time of the incident to endanger life or cause permanent injury. The BC manufacturing serious injury rate also is higher than the BC average (0.5 vs the BC average of 0.3). [11]

[9] BCStats (2015). Small Business Profile 2015: A Profile of Small Business in British Columbia.
[10] WorkSafeBC BC, Industry Safety Information Centre
https://online.worksafebc.com/anonymous/wcb.ISR.web/IndustryStatsPortal.aspx?c=2
[11] FIOSA-MIOSA. 2015 Annual Report.

Injury rates also are reported by company size. Between 2010-2014, medium-sized manufacturing employers—defined as those with 20 to 99 full-time equivalent employees (FTEs)—had the highest injury rate of the three employer size classes. This is almost twice the injury rate for all medium-sized employers in BC. Small manufacturers (less than 20 FTEs) had the second-highest injury rate overall. More significantly, small manufacturing firms had the higher serious injury rates than medium or larger manufacturers, and double the serious injury rate of all small employers in BC. Large manufacturers (100 or more FTEs) had the lowest injury rate and lowest serious injury rate of the three employer size classes in manufacturing. However, large manufacturing firms still had slightly higher injury rates and serious injury rates than the average across all large employers in BC. [12]

According to WorkSafeBC, approximately 37,000 young workers were injured and had time loss claims during the 2008 to 2013 period. Some 8,000 young workers were seriously injured. Young workers' injuries accounted for 1.1 million work days lost and around $323 million in claim costs for time loss claims. There were 19 young worker fatalities due to a workplace injury or disease. The manufacturing sector accounts for 13% of those claims. [13]

In addition to the human costs of injuries, work injuries impose a large financial burden on employers. In 2014, an average of 32 work days was lost per claim in manufacturing and total claims costs for the sector amounted to $158 million. [14]

Sector Challenges

Indeed, young workers are at a much higher risk of injury than workers of any other age group. More than half of workplace accidents involving workers aged 15 to 24 occur during the first six months on the job. And almost 20 percent occur during the first month on the job.[15]

However, the rising number of older workers in the workforce is one of the biggest demographic changes to affect B.C. in decades. The oldest baby boomers are now over the age of 65, and many have no immediate plans to retire. The percentage of employed people over the age of 55 — those who comprise the baby boomer generation —will increase significantly in the next decade. Even though older workers generally have lower than average rates of injury, they bring more health problems into the workplace than younger workers. As a result, employers could face increasing occupational health and safety risks.

The combination of an aging and an expanding workforce in manufacturing presents employers with four future challenges from a health and safety perspective:

1. The retirement of large numbers of experienced workers will result in a loss of formally and informally acquired OHS expertise – a gap that requires new OHS training and professional development programs to fill.
2. Employers in all sectors of the economy can expect OHS regulations to continue to expand, setting increasingly higher OHS standards that must be met. In many sectors of BC's economy, there will be greater demand for trained OHS personnel, which could make it even more difficult for employers in manufacturing to recruit in this area.

3. Higher employee turnover because of workforce aging and the projected growth of the manufacturing sector will result in an increased number of new workers, who typically are at higher risk of injury than other groups. Regulations require employers to provide an orientation program that specifically addresses health and safety issues for new and young workers. Increasingly, new workers will be immigrants whose language facility and lack of understanding of Canadian workplaces pose added challenges to the delivery of effective OHS orientation and on-going training.
4. OHS training and orientation has, in the past, often been implemented through HR departments, whose professionals tend to lack an occupational health and safety background. Given the growing number of potential OHS risks in future, it will be essential that qualified OHS professionals design and deliver such programs.

Higher injury rates lead to higher costs to the company (in form of larger premiums, cost of injury/downtime, etc.) This can affect the economic strength of individual companies and their ability to hire and retain employees.

Information on first-language, cultural background, literacy skills, educational levels and other safety-relevant demographics are not collected through WorkSafeBC so the impact or relevance on injury rates are unknown and difficult to quantify.

In addition to the challenges raised above, BC manufacturing companies are facing higher requirements to have their health and safety management system certified, both through public and supplier demand. The manufacturing industry has seen a spike in the number of suppliers who are required to obtain health and safety certification through a pre-qualification process. In order for a manufacturer to be eligible to bid on a job, they must meet increasingly strict health and safety requirements. This is affecting companies' abilities to stay competitive in the national and global economy. These requirements to achieve certification need an internal company champion to lead their occupational health and safety management system, hence a growing demand for well-qualified safety professionals.

[12] FIOSA-MIOSA. 2015 Annual Report.
[13] WorkSafeBC, Young Worker Statistics (accessed April 27, 2016) https://www2.worksafebc.com/topics/youngworker/Statistics.asp?ReportID=36918
[14] WorkSafeBC, Young Worker Statistics (accessed April 27, 2016) https://www2.worksafebc.com/topics/youngworker/Statistics.asp?ReportID=36918
[15] WorkSafeBC, Young Worker Statistics (accessed April 27, 2016) https://www2.worksafebc.com/topics/youngworker/Statistics.asp?ReportID=36918

Engagement Phase 1 Activities

The manufacturing Sector LMP Phase 1 took place between February and June 2016. The goal was to align partnerships, create a governance board and determine its role, and agree on what occupations and key issues need to be addressed.

Aligning Partnerships

The Alliance identified key partners including employers, industry associations and educational institutions. These organizations were identified based on their perceived ability to represent the interests and champion the needs of the greater manufacturing sector in BC, both demographically and geographically (Appendix D and E). These partners collectively provide an extensive database of employers and employees, which will be instrumental in the following phases if this Sector LMP is approved by the Ministry to proceed.

The Alliance conducted initial meetings with representatives of these organizations in early 2016 (Appendix A) with the intention of gaining their support in participating in the Sector LMP. These discussions highlighted manufacturing sector labour market concerns at their respective organizations and confirmed a perception of a shortage of qualified OHS professionals who understand the unique work settings and challenges within the manufacturing sector.

Two half-day workshops (see Appendix C for agendas) were held with these partners to discuss manufacturing sector labour market issues as a larger group and achieved the following outcomes:

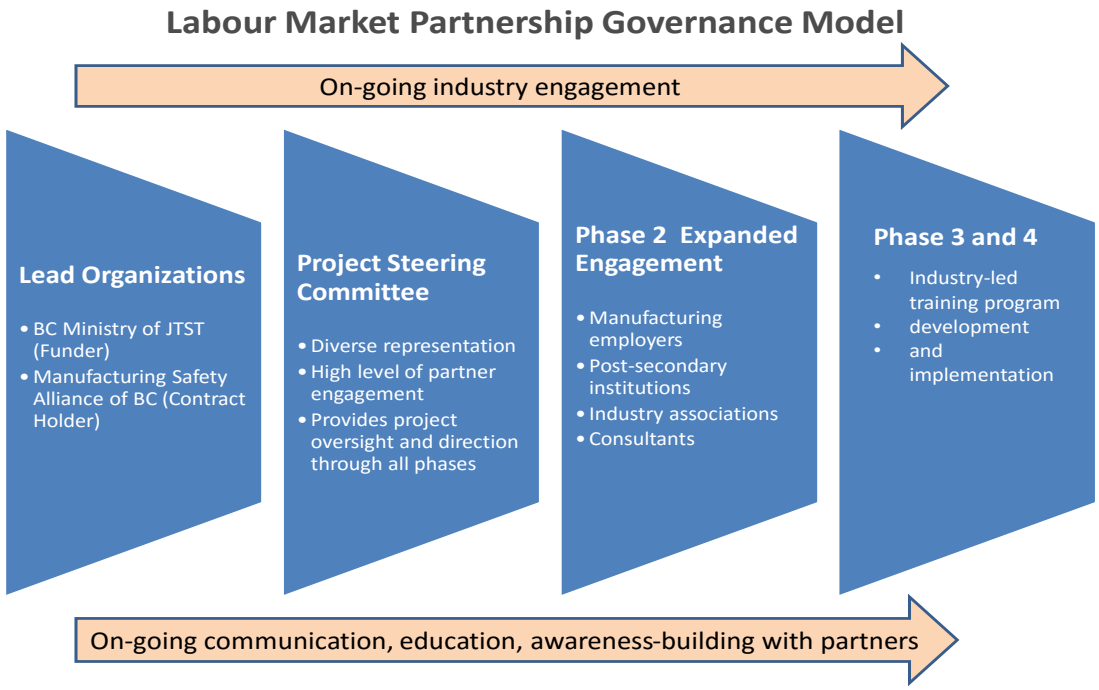
- The establishment of a project Steering Committee with a consensus on a governance framework, including partners' roles and responsibilities
- Review of current partner representation and recommendations of other stakeholders and partners to be engaged in potential subsequent phases
- The development of the terms of reference for the project's Steering Committee (Appendix F)
- Consensus on which occupation classification codes should to be examined
- Consensus on common challenges and the scope of the labour market issues

The results from Partners' discussions of each of these topics are summarized below.

Creation of Governance Framework

The governance model for the Sector LMP is presented below. It describes the lead organizations and the crucial role of the project committee in guiding all steps of the project. The model also highlights the commitment of the Alliance and the Steering Committee to on-going communications with key partners and, more broadly, employers in the manufacturing sector. Every new stage of the project will provide opportunities for engaging manufacturing sector partners and employers. Education and awareness-building among manufacturing employers will occur throughout the project.

As already demonstrated in Phase 1, the Alliance will take the lead role, administering the project and providing the resources required for the committee to function effectively. It also will coordinate project activities and deliverables with the Ministry, which is funding the project.



Project Steering Committee

Sector LMP partners have agreed to form a Steering Committee, which will provide project oversight through consensus. The project Steering Committee consists of representatives from organizations identified at the start of the Sector LMP engagement process. This committee will invite other partners and stakeholders to participate, as required, during each stage of the project. The Steering Committee will have advisory, quality control and decision-making responsibilities.

Committee Terms of Reference

The Steering Committee agreed to specific Terms of Reference (see Appendix F).

Committee Role

By consensus, the role of the Steering Committee is to provide advice to the contractor—the Alliance—at every stage of the project. In addition, it will:

- Review and make recommendations at all major phases of the project, including interim and final reports
- Provide continuity between all phases of the project, particularly between Phase 2 and 3 (if approved by the Ministry)
- Make recommendations for Phase 3 actions based on the results of the Phase 2 final report (if approved by the Ministry)

Committee Responsibilities

Individuals representing Steering Committee partners have the following responsibilities:

- Understand and champion the goals, objectives, and desired outcomes of the Sector Labour Market Partnership
- Lead by example
- Understand and represent the interests of all stakeholders
- Take a genuine interest in the outcomes and overall success of the Partnership
- Actively participate in meetings through attendance, discussion, and review of Minutes, papers and other Steering Committee documents
- Support open discussion and debate, encouraging fellow Steering Committee members to voice their insights
- Actively engage with stakeholders and their members or staff to increase participation in the research phase of the partnership

Committee Representation

The composition of the Steering Committee is intended to ensure that this Sector LMP will be industry-driven. Committee membership reflects the diversity of the partners (e.g. employer size, post-secondary institutions, industry associations, regions).

Of the 17 organizations currently on the Steering Committee, seven represent employer interests and two represent educational institutions. Ten of the 17 organizations are industry associations and therefore represent a wider group of manufacturers.

The chart showed in Appendix D visually summarizes the representation of the Steering Committee.

Expanded Engagement

The Steering Committee suggested additional stakeholders who could be consulted during subsequent phases of the project. These included:

- First Nations' and Aboriginal industry associations
- The BC Federation of Labour
- Additional post-secondary institutions
- Any other industry associations that represent manufacturers and food processors in BC
- Boards of Trade
- Regional economic development commissions
- Standards bodies, such as Canadian Standards Association (CSA) or International Organization for Standardization (ISO)
- BC Human Resources Management Association
- Manufacturing industry associations in other provinces
- BC employers known for excellent safety record (e.g. Bell, Telus, Teck Metals)

The following suggestions also were made for additional partners who could join the Steering Committee to represent:

- A small employer
- A post-secondary institution that provides related OHS programs based outside of the Mainland/Southwest region (e.g. Northern Lights College, Selkirk College, Camosun College, Okanagan College, or Malaspina College)
- Chambers of Commerce
- First Nations' and Aboriginal employers

Consensus on Research Terms of Reference

The Steering Committee agreed that the following classification systems would guide the labour market information research in Phase 2 (if funded by the Ministry). These widely-used classification systems define the scope of the manufacturing sector, the OHS professions, and OHS training and education programsthat are most relevant to this Sector LMP.

- The North American Industry Classification System (NAICS)[16] identifies the variety of manufacturing businesses that OHS professionals are responsible for and need industry-specific knowledge about
- The National Occupational Classification (NOC)[17] lists the occupational groupings in the OHS area and defines the skill levels and experience required
- The Classification of Instructional Programs (CIP)[18] defines the fields of study for OHS professionals

[16] http://www.statcan.gc.ca/eng/subjects/standard/naics/2012/index
[17] http://www.statcan.gc.ca/eng/subjects/standard/noc/2011/index
[18] http://www.statcan.gc.ca/eng/subjects/standard/cip/2011/index

Defining Industry Codes for the Manufacturing Sector

The manufacturing sector is defined by the 21 NAICS industry codes at the three-digit level (Statistics Canada does not publish information at the 4-digit level for BC because of small sample sizes). The codes for non-durable and durable manufacturing were the basis for BCStats' profile of the province's manufacturing sector.[19] Any employers participating in subsequent phases of the manufacturing Sector LMP would have to fit into one of the 3-digit NAICS in the table below.

3-Digit NAICS for Manufacturing
311 Food manufacturing
312 Beverage and tobacco product manufacturing
313 Textile mills
314 Textile product mills
315 Clothing manufacturing
316 Leather and allied product manufacturing
321 Wood product manufacturing
322 Paper manufacturing
323 Printing and related support activities
324 Petroleum and coal product manufacturing
325 Chemical manufacturing
326 Plastics and rubber products manufacturing
327 Non-metallic mineral product manufacturing
331 Primary metal manufacturing
332 Fabricated metal product manufacturing
333 Machinery manufacturing
334 Computer and electronic product manufacturing
335 Electrical equipment, appliance and component manufacturing
336 Transportation equipment manufacturing
337 Furniture and related product manufacturing
339 Miscellaneous manufacturing

[19] BC Stats. (2015). A Profile of British Columbia's Manufacturing Sector, Prepared for Ministry of Jobs, Tourism and Skills Training.

Defining Occupational Codes

Another objective of Phase 1 is to define specific health and safety occupational codes that are relevant to this Sector LMP. The National Occupational Classification system provides skill-level criteria based on education, training and experience for all occupations. Below is a table listing the occupational codes for the OHS profession.

4-Digit NOCs for OHS occupations
0112 Human resources managers ○ manager, occupational health and safety ○ occupational health and safety manager
2263 Inspectors in public and environmental health and occupational health and safety ○ field supervisor – occupational health and safety ○ industrial safety officer – occupational health and safety ○ inspector, occupational health and safety ○ labour affairs officer – occupational health and safety ○ labour standards officer – occupational health and safety ○ occupational health and safety officer ○ officer, occupational health and safety
4165 Health policy researchers, consultants and program officers ○ prevention officer – occupational health and safety

Additionally, the NOC uses four skill levels to describe occupations. These are directly relevant to any training and educational programs examined during the course of this project:

- Skill level A: University degree (bachelor's, master's or doctorate)
- Skill level B: Two to three years of post-secondary education at community college, institute of technology or CÉGEP; two to five years of apprenticeship training; or three to four years of secondary school and more than two years of on-the-job training, occupation-specific training courses or specific work experience. Occupations with supervisory responsibilities are also assigned to skill level B. Occupations with significant health and safety responsibilities (e.g. fire fighters, police officers and licensed practical nurses) are assigned to skill level B
- Skill level C: Completion of secondary school and some short-duration courses or training specific to the occupation or some secondary school education, with up to two years of on-the-job training, training courses or specific work experience
- Skill level D: Short work demonstration or on-the-job training or no formal educational requirements

Defining Instructional Programs

The Classification of Instructional Programs (CIP) identifies existing instructional programs. CIP is now the Statistics Canada standard for field of study classification. Statistics Canada defines a field of study as a discipline or area of learning or training. The CIP is the basis for inventories of job banks and related training programs across Canada.[20]

The OHS programs directly relevant to this Sector LMP are classified in three distinct fields of study: Occupational health and industrial hygiene (51.2206); Occupational safety and health technology/technician (15.0701); and Industrial safety technology (15.0703). These categories are described as follows:

Occupational health and industrial hygiene (51.2206)

"This instructional program class comprises any program that prepares public health specialists to monitor and evaluate health and related safety standards in industrial, commercial, and government workplaces and facilities. These programs include courses in occupational health and safety standards and regulations; health-related aspects of various occupations and work environments; health hazard testing and evaluation; test equipment operation and maintenance; industrial toxicology; worker health and safety education; and the analysis and testing of job-related equipment, behaviour practices, and protective devices and procedures."

Occupational safety and health technology/technician (15.0701)

"This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining job-related health and safety standards. These programs include courses in safety engineering principles, inspection and monitoring procedures, testing and sampling procedures, laboratory techniques, applications to specific work environments, and report preparation."

Industrial safety technology (15.0703)

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to assist engineers and other professionals in implementing and enforcing industrial safety standards. These programs include courses in industrial processes, industrial hygiene, toxicology, ergonomics, system and process safety, safety performance measurement, human factors, human behaviour, and applicable laws and regulations.

[20] See Government of Canada Job Bank: http://www.jobbank.gc.ca/report_educational-eng.do?cip=15.07&mid=39070&lang=eng

Consensus on Labour Market Issues

The Steering Committee partners defined the scope of the labour market issues to be addressed in subsequent phases. Common themes identified from those conversations are summarized below.

Shortage of OHS Professionals

Partners agreed that the current shortage of trained OHS professionals in manufacturing will only increase, given that the sector's workforce is expanding in the province. In addition, new industry-wide quality certifications (such as ISO 14001), workers' compensation regulations and procurement prequalification processes are raising the bar for employers' safety performance. Employer and industry representatives described the difficulties they now encounter trying to hire qualified OHS professionals.

Another issue raised is that a large percentage of available OHS professionals are hired by organizations such as WorkSafeBC, health and safety associations and other health and safety service providers. These organizations tend to attract highly-qualified, experienced people and therefore the remaining employers potentially face reduced hiring options.

BCIT offers arguably the most sought-after OHS program by employers and learners alike. However, this 2-year diploma program accepts a maximum of 48 students annually. The partners expressed concern that the BCIT program can't meet employers' current and future needs for trained OHS professionals within the province. Assessing the quality of other programs is necessary to see whether other institutions can help rectify the supply shortfall, assuming a shortfall is verified in the next phases of the project (if approved by the Ministry) of this Sector LMP.

Limitations of Current Training Programs

The partners identified three additional limitations with current OHS training. First, while there are many post-secondary institutions that offer occupational health and safety education or training programs in BC, there is little consistency across these programs. Second, none of these OHS training programs is specifically focused on safety issues in manufacturing. And third, the variety of OHS professional designations available in BC makes it is difficult for employers to assess the knowledge and skill level of potential hires.

These points are supported by the Alliance's preliminary research, which identified 6 post-secondary institutions, out of a total of 25 in BC, which offer various types of OHS programs (see Appendix B for details). There is only 1 university (UBC) offering a degree program, at the graduate level. BCIT and Simon Fraser offer diploma programs. BCIT, Okanagan College, University of Victoria, and UNBC all offer certificate programs. Further research is required to document the range of program content and learning outcomes across these programs.

Training and Development Issues

Consensus among the partners is that no single training program appears to meet the manufacturing sector's needs for OHS occupations. The partners identified some OHS training and development opportunities that require further investigation, including:

- Entry-level programs to get people started on an OHS career track.
- Career transition training for workers in related professions, such as nursing or paramedics.
- Training for recent immigrants who have OHS-relevant professional qualifications from their home country.
- Industry-specific OHS training along with relevant industry experience.
- On-going training to ensure that practices and knowledge is up-to-date with standards, legislation, certifications and other OHS requirements.

Several partners emphasized that public expectations for safe workplaces is rising and, increasingly, that leading employers see this goal as reflecting their corporate social responsibility commitment. A safe workplace also contributes to a company's reputation as "an employer of choice," helping to achieve recruitment and retention goals.

Ideally, OHS professionals in manufacturing will positively influence the development of 'safety cultures' rather than being what partners described as "compliance cops," simply enforcing rules and regulations. In other words, training programs must go beyond existing legislation, regulations and compliance requirements to focus more on prevention and promotion of safe and healthy workplaces.

Partners also agreed that training programs should have a standardized core of knowledge and skills, so that employers can accurately match the competencies of OHS professionals entering the workforce with their specific business needs. Many partners find it frustrating trying to understand the various industry and educational designations available. Because OHS qualifications lack standardization, hiring managers have difficulty gauging a prospective hire's knowledge and skill competencies. To address this need for standardized training, partners also proposed an industry-wide regulatory body that would certify training programs and courses as meeting minimum industry standards.

The Ideal Skill Set

The Steering Committee partners were asked to brainstorm on the ideal skill set for OHS professionals in manufacturing. There was wide consensus on the need to define a common set of core competencies, or minimum standards, which any safety professional in the industry should possess. These core competencies, or at least some of them, may apply to any industry (e.g. legislation, WorkSafeBC regulations, WHMIS, etc.), but others will be specific to manufacturing sub-sectors. Partners agreed that industry needs to define these general and specific skills, with complementary input from WorkSafeBC, industry associations, unions, post-secondary institutions, and other stakeholders.

Partners also agreed that these competencies should take account of the sector's changing workforce demographics. Many employers already are experiencing labour shortages, which are projected to increase in the next 5 to 10 years in many industries, not just manufacturing. Furthermore, the loss of skilled workers due to an aging population and their replacement by younger, less skilled workers may put result in employers recruiting from non-traditional areas including immigrant workers. These trends underscore the greater challenges employers will face keeping an increasingly multi-cultural and multi-linguistic workforce safe at work.

There was emphasis on the need to provide more than just classroom training, so that occupational health and safety professionals fully understand the unique contexts and practical challenges within different types of manufacturing.

While technical skills clearly are important, partners also highlighted the relevance of soft skills such as leadership, communication, teaching, facilitation, cultural sensitivity and change management. Given that a key role of occupational health and safety professionals is to lead the development of a positive, safety-first culture, these skills will be essential in the future.

Finally, the ideal OHS skill set must also include up-to-date competencies in new information technologies. Not only are manufacturing processes becoming more automated, but at the same time, new digital technologies are being applied to the monitoring, identification and reduction of OHS risks and hazards.

Unique Challenges Related to Employer Size

It cannot be assumed that occupational health and safety practices and awareness are similar across all employer sizes. Thus, it will be essential in Phase 2 (if funded by the Ministry) to identify challenges faced by employers of different sizes. One goal will be to find effective ways to improve the OHS performance of small and medium-sized firms, potentially through shared resource programs, an approach already successfully being used by the Alliance.

Furthermore, it also will be important to focus on the OHS needs of firms in the largest and fastest-growing industry sub-sectors (i.e. NAICS), because they will employ the largest share of the manufacturing workforce. Improvements in this group will have the greatest impact, not only because of the number of BC employees directly affected but as a benchmark employers, other companies may look towards them for best OHS practices. These companies have the potential to encourage other employers to follow their successful journey to occupational health and safety excellence.

Prequalification and Contractor Management

There is a clear trend already evident regarding the increasing number of health and safety requirements for the contract bidding process. Larger organizations are more frequently demanding prequalification, specifically in the supplier's health and safety management system, through a third party contractor management service provider. This requirement will further drive the need for effectively trained OHS professionals to support employers in building their OHS programs to meet the prequalification standards.

Conclusion

Phase 1 of the Manufacturing Sector Labour Market Partnership has enabled the Alliance to bring together partners and stakeholders around a common goal: to identify the needs of BC's manufacturing workplaces for occupational health and safety professionals and the types of industry-specific skills required. Phase 1 consultations underscored the future need for systematic, standardized training of OHS professionals who not only possess a detailed understanding of the manufacturing context, but also have the technical and 'soft' skills required to lead the sector's employers in the development of effective injury prevention and health and safety promotion initiatives. Indeed, reducing injury rates in BC's manufacturing sector at a time of rapid growth in the sector, coupled with its changing workforce demographic, requires a a proactive approach to promoting safety cultures that can only be achieved by industry-led OHS professional training and development. That is the goal of this Sector LMP.

The engagement activities in Phase 1 have led partners to a consensus about the need for more OHS professionals with industry-specific knowledge and relevant experience. The key issues raised during Phase 1 emphasize the importance of having enough adequately qualified OHS professionals to support the future growth and success of BC's manufacturing firms.

BC's manufacturing industry is growing, the nature of manufacturing work is changing and the manufacturing workforce is becoming more diverse. Furthermore, the sector has relatively high injury rates and faces sector-specific issues that could pose significant future OHS risks. And in the face of rising public and supply chain expectations for improved workplace safety, as well as increased oversight and regulation from WorkSafeBC, there is no doubt that manufacturing employers will focus increasingly on improving their health and safety systems and strengthening their safety cultures. Taking all these factors into consideration, this Sector LMP proposes that the labour market demand for OHS professionals in BC's manufacturing industries will grow considerably in the coming decade.

All partners consulted during Phase 1 agreed with the need to conduct in-depth labour market research in order to methodically identify the current and future OHS needs of BC's manufacturing industry. The scope of the labour market issues identified within the manufacturing sector was broad and comprehensive. The key conclusion reached by the Steering Committee was that more investigation of these issues is required in order to accurately inform the industry-led design and delivery of appropriate OHS training and professional development programs in BC's manufacturing sector.

Phase 1 confirmed a strong commitment by partners to work together to achieve this end. The purpose and goals of the manufacturing Sector LMP are important to each of these partner organizations and to their future success, which is why they all are enthusiastic to participate.

The partners also agreed on a governance framework, and using that, established a Steering Committee for Phase 1 and subsequent phases (if funded by the Ministry). The Steering Committee, with quality control and decision-making responsibilities, will oversee the project and ensure adherence to project goals and timelines. The Alliance and the project Steering Committee are ready to move into Phase 2 (if funded by the Ministry), with the clear recognition that the results of Phase 2 should provide the foundation for successful program development and implementation in subsequent phases of the project (if funded by the Ministry).

Appendices

APPENDIX A: Preliminary Consultations

	Organization	Contact	Title	Representing		Meeting Type	Meeting Date	AC Interest
1	BC Food Processors Association (BCFPA)	James Donaldson	CEO	BC wide representation	Industry Association	Face-to-Face	March 8, 2016	Yes
2	Nestle Waters	Kevin Thorburn	Supply Chain Manager	East Fraser Valley	Large Employer	Face-to-Face	March 14, 2016	Yes
3	Teamsters Union	Paul Barton	Secretary-Treasurer	BC wide representations	Worker Representative	Face-to-Face	April 8, 2016	Yes
4	Canadian Manufacturing Exporters	Greg Hoing	Acting Vice-President BC	BC wide representation	Industry Association	Email/phone calls	Resigned from CME before face-face meeting	N/A
		Glenda Beaulieu	Manager, Marketing & Events and Acting Vice-President BC	BC wide representation	Industry Association	Phone Call Discussion	April 1, 2016	Yes
		Dan Reader	Chair BC Advisory Board, CME/CEO Murray Latta Progressive Machine	BC wide representation/ Lower Mainland	Industry Association/ Large Employer	Phone Call Discussion	April 1, 2016	Yes
5	Andrew Peller	Daneen Skilling	National EHS Manager	Okanagan/BC Interior	Large Employer	Face-to-Face	March 15, 2016	Yes
6	CCOHS	Gareth Jones	Acting PCEO	Canada wide	Industry Association	Face-to-Face	March 1, 2016	Yes
7	WorkSafeBC	Dale Walker	Director Industry and Labour Services	BC wide representation	Industry Association / Large Employer	Face-to-Face	March 11, 2016	Yes
8	BCIT	Lisa Chu	Associate Dean	BC wide representation	Educational Partner	Face-to-Face	March 1, 2016	Yes
		Bernice Budz	Dean of School of Health Sciences	BC wide representation	Educational Partner	Face-to-Face	March 22, 2016	Yes
9	KPU	Wayne Tebb	Dean of School of Business	BC wide representation	Educational Partner	Face-to-Face	March 22, 2016	Yes

APPENDIX A: Preliminary Consultations

	Organization	Contact	Title	Representing		Meeting Type	Meeting Date	AC Interest
10	Viking Air and Rep for Vancouver Island Manufacturing Group	Robin Ambrose	Director of People and Wellness	Vancouver Island	Industry Association / Large Employer	Phone Call	March 8, 2016	Yes
11	Surrey Board of Trade	Anita Huberman	CEO	Business Community (Surrey)	Industry Association	Face-to-face	March 9, 2016	Yes
12	Northern Development Initiative Trust	Renata King	Director of Business and Development	Northern BC	Industry Association	Phone Call	March 31, 2016	Yes but unable to attend meeting dates

APPENDIX B: OHS Programs Offered by BC Post-Secondary Institutions

School	**Award**			**Availability**			**Program Length**
	Degree	Diploma	Certificate	Full-time	Part-time	Distance	
British Columbia Institute of Technology		*	*	*	*	*	18-24 months
Okanagan College			*	*		*	12 months
Simon Fraser University		*			*		234 core hours, plus 78 hours of electives to be completed within 5 years
University of British Columbia	MSc / PhD			*	*		Full-time: 16-30 month Part-time: 1.7 to 2.5 years
University of Victoria			*		*	*	2-3 years
University of Northern British Columbia			*	*	*		9 months (part time) or 10 weeks when taking full time

Source: CCOHS **https://www.ccohs.ca/oshanswers/information/courses.html**

APPENDIX C: Workshop Agendas

WORKSHOP AGENDA (April 13, 2016)		
Time	***Topic***	***Process***
8:00 – 8:30	Light breakfast & Registration	
8:30 – 9:15	Welcome and introductions Review of agenda, discussion of expectations	Lisa, Graham
9:15 – 9:45	What is your perspective on the need for OHS professionals? • Have you had successes in developing / recruiting relevant OHS expertise? • What is the major gap you now face? • What gaps do you expect in the next 3-5 years?	Graham & Participants (round table discussions / plenary roll-up)
9:45 – 10:15	What should be the issues and objectives of a labour market study focused on OHS professionals in BC's manufacturing sector? • What are the priority issues that a LMS must address (i.e. scope)? • What should be the top 3 objectives for the LMS?	
10:15 – 10:30	***Break***	
10:30 – 11:00	Brainstorming on the ideal skill set for OHS professionals in manufacturing: • From your perspective, what would be the ideal skill set of an OHS professional working in BC's manufacturing sector? • How should responsibility for training and oversight be shared among post-secondary institutions, private training organizations, employers, unions and industry associations?	Graham & Participants
11:00– 11:35	Establishing a partnership framework: • Recommended terms of reference for a project committee? • What should be the roles and responsibilities of key participants?	Graham & Participants
11:35– 11:50	Recommend additional participants: • To be consulted in Phase 1? • As representatives on the committee?	
11:50 – 12:00	Summary, next steps	Lisa
12:00 – 1:00	***Networking Lunch***	

April 13th Workshop

Participants:

Wayne Tebb	Dean, KPU School of Business
Glenda Beaulieu	Manager, Marketing and Events, Canadian Manufacturers & Exporters
Paul Barton	Secretary-Treasurer, Teamsters Local Union 464
Kevin Thorburn	Supply Chain Manager, Nestle Waters Canada
Dale Walker	Director, Industry and Labour Services, WorkSafeBC
Daneen Skilling	National Environmental, Health & Safety Manager, Andrew Peller
Dan Reader	Chair BC Advisory Board, Canadian Manufacturers & Exporters
James Donaldson	CEO, BC Food Processors Association
Shauna Benson	Program Manager, Sector Programs, Ministry of Jobs, Tourism & Skills Training and Responsible for Labour
Lisa McGuire	CEO, FIOSA-MIOSA
Manu Nellutla	Director Research Programs and Development, FIOSA-MIOSA
Jane Eckersley	Executive Assistant, FIOSA-MIOSA
Jennifer Proby	Research and Programs Coordinator, FIOSA-MIOSA
Dr. Graham Lowe	Facilitator

Regrets:

Anita Huberman	CEO, Surrey Board of Trade
Bernice Budz	Dean, BCIT School of Health Sciences
Robin Ambrose	Representative, Vancouver Island Manufacturing Group
Gareth Jones	Acting PCEO, Canadian Centre for Occupational Health & Safety
Renata King	Director of Business and Development, Northern Development Initiative Trust

April 13th Workshop Goals

The purpose of the workshop was to build consensus among interested partners for the scope, objectives and governance for a project that will assess and meet the need for skilled OHS professionals within BC's manufacturing sector. The workshop agenda (Appendix C) was organized around the following goals:

1) Solicit opinions on the need for OHS professionals in their industry.

2) Reach consensus on the issues, scope and objectives of a labour market study that will provide the information needed to fill existing and projected needs for OHS professionals in BC's manufacturing sector.

3) Provide initial recommendations regarding the ideal skill set for OHS professionals in the manufacturing sector.

4) Establish a partnership framework for the project by defining roles and responsibilities of key participants, including the terms of reference for a project Advisory Committee.

5) Recommend additional organizations that should be (a) consulted in Phase 1 and (b) represented on the Advisory Committee.

WORKSHOP AGENDA (June 7th, 2016)		
Time	***Topic***	***Process***
8:00 – 8:30	Light breakfast & Registration	
8:30 – 9:00	Welcome and introductions Review of agenda, discussion of expectations	Lisa, Graham
9:00 – 9:20	Overview of Sector Labour Market Partnership (LMP) program and what this particular Partnership must do to progress to Phase 2.	Shauna
9:20 – 9:55	Discussion of Steering Committee members' feedback on the April 29th Report: • Does the report accurately reflect the discussion at the April 13th workshop, particularly the challenges facing the sector? • What can members do to engage sector stakeholders/partners as the project evolves? • Reach consensus on the overall objectives of the Sector LMP.	Participants (round table discussions / plenary roll-up)
9:55 – 10:15	Reach consensus on the Steering Committee's membership and representation: • Does the Steering Committee include all relevant stakeholders/partners, given the focus of the project? • Is there adequate industry representation on the Steering Committee by firm size, manufacturing sub-sector, region, and FIOSA-MIOSA member/non–member?	Participants
10:30 – 10:45	Review and reach consensus on the Sector LMP governance model: • Does the governance model (Report, page 22) accurately describe the sector partnership on which this project is based? • What's missing from the model? How could it be strengthened?	Participants
10:45– 11:15	Review and reach consensus on Terms of Reference for the Sector LMP: • Do the Steering Committee's Terms of Reference cover all relevant roles you think the committee needs to play to make the project a success (see handout)? • Do the Steering Committee's Terms of Reference clearly define the responsibilities of the Steering Committee, as you think will be required for this project?	Participants (round table discussions / plenary roll-up)
11:15– 11:45	Review and reach consensus on the Research Terms of Reference for the Sector LMP: • Reaching consensus on the industry, occupation and instructional classifications in the Research Terms of Reference (Report, pages 24-27). • Does anything need to be added, particularly to the occupational terms of reference? • Are the Research Terms of Reference appropriate for meeting the Sector LMP's objectives?	Participants (round table discussions / plenary roll-up)
11:45 – 12:00	What would be an ideal Steering Committee meeting schedule to plan and launch Phase 2? • Summary, next steps	Participants Lisa, Shauna
12:00 – 1:00	***Networking Lunch***	

June 7th Workshop

Participants:

Wayne Tebb	Dean, KPU School of Business
Anita Huberman	CEO, Surrey Board of Trade
Bernice Budz	Dean, BCIT School of Health Sciences
Glenda Beaulieu	Manager, Marketing and Events CME
Paul Barton	Secretary-Treasurer, Teamsters Union
Kevin Thorburn	Supply Chain Manager, Nestle Waters Canada
Robin Ambrose	Representative, Vancouver Island Manufacturing Group
Dale Walker	VP Employer, Industry, & Worker Services, WorkSafeBC
Daneen Skilling	National Environmental, Health & Safety Manager, Andrew Peller
Dan Reader	Chair BC Advisory Board, Canadian Manufacturers and Exporters
James Donaldson	CEO, BC Food Processors Association
Sandra Oldfield	CEO and President Tinhorn Creek Vineyards
Scott Bax	Senior Vice President Operations Pinnacle Renewable Energy Inc.
Gareth Jones	Acting PCEO, Canadian Centre for Occupational Health
Renata King	Director of Business and Development, Norther Development Initiative Trust
Shauna Collister	Program Manager, Sector Programs, Ministry of Jobs, Tourism & Skills Training
Lisa McGuire	CEO, Manufacturing Safety Alliance of BC
Manu Nellutla	Director, Research Programs & Development, Manufacturing Safety Alliance of BC
Jane Eckersley	Executive Assistant, Manufacturing Safety Alliance of BC
Jennifer Proby	Research and Programs Coordinator, Manufacturing Safety Alliance of BC
Dr. Graham Lowe	Facilitator, The Graham Lowe Group

June 7th Workshop Goals:

The purpose of this workshop is to build on the results of the April 13th Steering Committee workshop and the Phase 1 Sector Engagement Interim report submitted by FIOSA-MIOSA to the Ministry of Jobs, Tourism and Skills Training.

Specifically, this workshop will discuss and reach consensus on the Sector Labour Market Partnership's governance, the membership of the Steering Committee, the committee's roles and responsibilities, and the next steps required to move to Phase 2 of the Sector Labour Market Partnership.

Specific workshop goals include the following:

1) Learn about the Sector Labour Market Partnership (LMP) program.

2) Receive input from Steering Committee members on the April 29th Phase 1 Sector Engagement Interim Report (Report, hereafter), most importantly on the overall direction and objectives of the Sector Labour Market Partnership (LMP).

3) Reach a consensus on committee membership, particularly in terms of the representation of key partners, types of manufacturers and regions.

4) Review and reach consensus on the Sector LMP governance model.

5) Review and reach consensus on the Sector LMP Steering Committee's Terms of Reference, specifically the Steering Committee's roles and responsibilities.

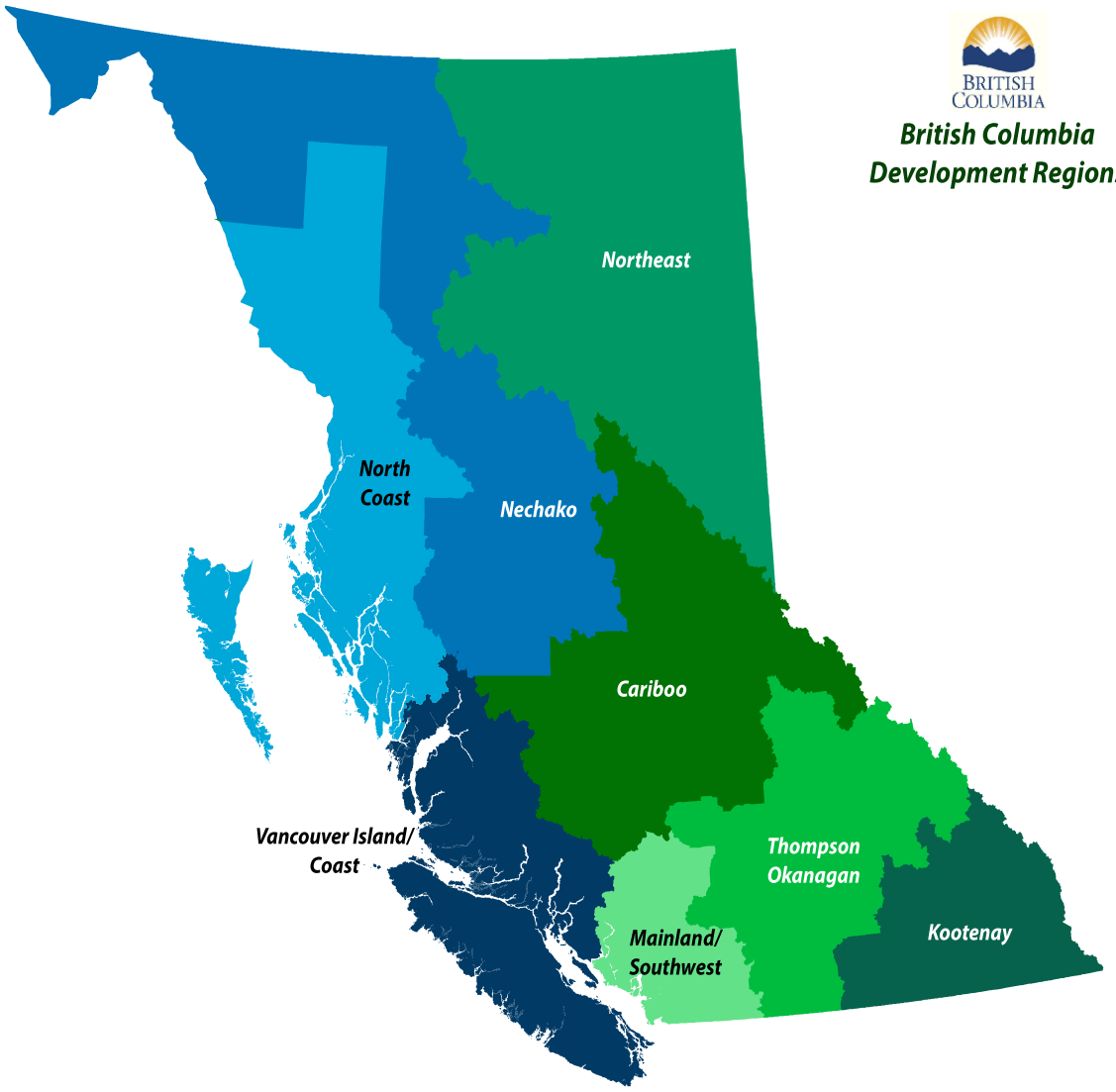
6) Review and reach consensus on the Sector LMP Research Terms of Reference.

7) Agree on the steps required to successfully launch Phase 2.

APPENDIX D: Committee Representation

Organization	Stakeholder Group		
	Employer Size *	Industry Association/ Government Agency	Educational Institution
Andrew Peller	Large		
BC Food Processors Association (BCFPA)	Small/Medium/ Large	●	
BCIT			●
Canadian Manufacturing Exporters (CME)	Small/Medium/ Large	●	
Canadian Centre for Occupational Health and Safety (CCOHS)		●	
KPU			●
Manufacturing Advisory Group (MAG)	Small/Medium/ Large	●	
Manufacturing Safety Alliance of BC	Small/Medium/ Large	●	
Murray Latta	Large		
Nestle Waters	Large		
Northern Development Initiative Trust	Small/Medium/ Large	●	
Pinnacle Renewable Energy	Large		
Surrey Board of Trade	Small/Medium/ Large	●	
Teamsters Union	Small/Medium/ Large	●	
Tinhorn Creek	Medium		
Vancouver Island Manufacturing Group	Small/Medium/ Large	●	
WorkSafeBC		●	

* Size categories based on WorkSafeBC, see footnote 10


BRITISH COLUMBIA
British Columbia
Development Regions
Northeast
North
Coast
Nechako
Cariboo
Vancouver Island/
Coast
Thompson
Okanagan
Kootenay
Mainland/
Southwest

	Region							
Organization	Vanc. Island Coast	Mainland Southwest	Thompson Okanagan	Kootenay	Cariboo	North Coast	Nechako	Northeast
Andrew Peller								
BC Food Processors Association (BCFPA)								
BCIT								
Canadian Manufacturing Exporters (CME)								
CCOHS								
KPU								
Manufacturing Advisory Group (MAG)								
Manufacturing Safety Alliance of BC								
Murray Latta								
Nestle Waters								
Northern Development Initiative Trust								
Pinnacle Renewable Energy								
Surrey Board of Trade								
Teamsters Union								
Tinhorn Creek								
Vancouver Island Manufacturing Group								
WorkSafeBC								

APPENDIX E: Partner Profiles

Andrew Peller Limited

Andrew Peller Limited is a leading producer and marketer of quality wines in Canada. With wineries in British Columbia, Ontario and Nova Scotia, the company markets wines produced from grapes grown in Ontario's Niagara Peninsula, British Columbia's Okanagan, and Similkameen Valleys, and from vineyards around the world. We are proud to have been awarded "Canadian Wine Producer of the Year" by the International Wine and Spirit Competition in 2016 and our Red Rooster Winery awarded the South Okanagan 2015 winery of the year. These key awards are among the highest distinctions in the Canadian wine industry, and a testament to our commitment to quality in all we do. We share that same passion, drive and commitment to the health and safety of our employees and ensuring a healthy workplace for all.

BCIT School of Health Sciences

British Columbia Institute of Technology (BCIT) is a large post-secondary institution with a provincial mandate. BCIT has six major schools, one being the School of Health Sciences. The school offers an Occupational Health and Safety Program consisting of two years of education leading to a Diploma of Technology. The program accepts 48 students annually. The School of Health Sciences maintains the quality and relevance of its health training programs through close liaison with employers and professional associations. The School's programs are delivered through full-time and part-time studies, as well as on-line and distance learning.

BC Food Processors Association

BC Food Processors Association is dedicated to helping the food processing industry achieve economic prosperity and sustainable safe production. The BCFPA represents micro, small, medium, and large processing companies, and since 2004 has grown to over 300 members. It provides support, training, fellowship and a strong voice for its members. For the public it provides good food, innovative nutrition solutions, public policy advice, and sustainable economic benefits for communities, and public education.

Canadian Manufacturers and Exporters

Founded in 1871, Canadian Manufacturers & Exporters (CME) is the country's leading trade and industry association. The CME also chairs the Canadian Manufacturing Coalition which unites 53 industry associations, more than 100,000 companies and 2 million employees from coast to coast. Provincially, CME-BC chairs the Alliance for Manufacturing in BC which is a partnership of more than a dozen manufacturing associations.

Kwantlen Polytechnic University's School of Business

Kwantlen Polytechnic University's School of Business is the second largest undergraduate business school in Western Canada—consisting of over 150 business faculty, 3,500 full-time students, and 9,000 total students annually who are enrolled in one of the 16 available program options. Awarded the prestigious international accreditation by the Association of Collegiate Business Schools and Programs (ACBSP), Kwantlen's School of Business meets the rigorous educational standards established by ACBSP and stands as one of the few internationally accredited business schools in the province of British Columbia.

Manufacturing Advisory Group

British Columbia's wood products manufacturers have come together in an unprecedented, voluntary collaboration to advance research and best practices in improving mill safety in response to devastating mill explosions in 2012.

Manufacturing Safety Alliance of BC

Manufacturing Safety Alliance of BC (formerly FIOSA-MIOSA Safety Alliance of BC) is the health and safety association for manufacturers and food processors in British Columbia. The guiding principle is to create and maintain a united resource so that the manufacturing and food processing industries can improve health and safety, reduce injury rates, and insurance premiums. The Alliance works hand-in-hand with organizations to help build an effective and sustainable health and safety management system. It offers training, tools, resources and professional advisory services to help businesses become healthier and safer places to work.

Murray Latta Progressive Machine

Murray Latta Progressive Machine has established itself as a leader of custom industrial machinery manufacturing, parts & equipment distribution, and millwrighting & machinery moving. What started out in 1918 as a custom machinery manufacturer and steel fabrication shop, quickly expanded to include field millwright and project management services. Through Progressive Mill Supplies beginning in 1954, they have been distributing capital equipment, parts and consumables to the forestry sector, while offering equipment upgrades, installation, maintenance and repair. Murray Latta Progressive Machine has since acquired the assets of Brunette Industries (est. 1920s) resulting in the formation of a separate distribution company: Brunette Machinery Company.

Nestlé Waters Canada

Nestlé Waters Canada employs 400 people in 2 bottling facilities and 4 distribution centres. The company is affiliated with Nestlé Waters North America which, in turn, is a division of Paris-based Nestlé Waters, the world's largest bottled water company. Almost half of all domestic spring water products sold in Canada are produced by Nestlé Waters Canada.

Pinnacle Renewable Energy

Pinnacle Renewable Energy Inc. is the longest-established wood pellet producer in Canada and third largest in the world. Today, Pinnacle runs seven wood pellet plants throughout B.C., as well as its own dedicated ship loading terminal in Prince Rupert, BC. Pinnacle employs more than 270 people and produces more than one and a half million tonnes of wood pellets annually. All Pinnacle plants operate 24 hours a day, seven days a week. The pellet plants are located in Houston, Burns Lake, Meadowbank, Quesnel, Williams Lake, Armstrong and Lavington. Additionally, Pinnacle is an active member of the Manufacturing Advisory Group.

Teamsters Local Union No. 464

Teamsters Local Union No. 464 the oldest chartered Teamsters Local in Canada, represents workers in the dairy and bakery industries as well as office workers, mechanics and drivers [tanker drivers and independent franchise drivers]. Teamsters is a progressive membership driven Local Union that recognizes the necessity of protecting workers.

Tinhorn Creek Vineyards

Tinhorn Creek Vineyards is a family run estate winery in the South Okanagan Valley sitting atop the Golden Mile Bench of Oliver, BC. The winery grows its own fruit from its 150 acres of land and makes internationally recognized wines. Throughout the year Tinhorn Creek welcomes visitors to its wine shop and award winning restaurant and in the summer months' hosts concerts in its outdoor amphitheatre. The winery believes strongly in all aspects of sustainability and it the only certified carbon neutral winery in all of Canada.

WorkSafeBC

WorkSafeBC (the Workers' Compensation Board of British Columbia) is a statutory agency governed by a board of directors appointed by the provincial government. We provide coverage to 2.26 million workers and more than 225,000 registered employers throughout B.C., and are funded through insurance premiums paid by employers and investment returns. In administering the Workers Compensation Act, WorkSafeBC is accountable to the public through the provincial government, which is responsible for protecting and maintaining the overall well-being of the workers' compensation system.

APPENDIX F: Steering Committee Terms of Reference

Sector LMP

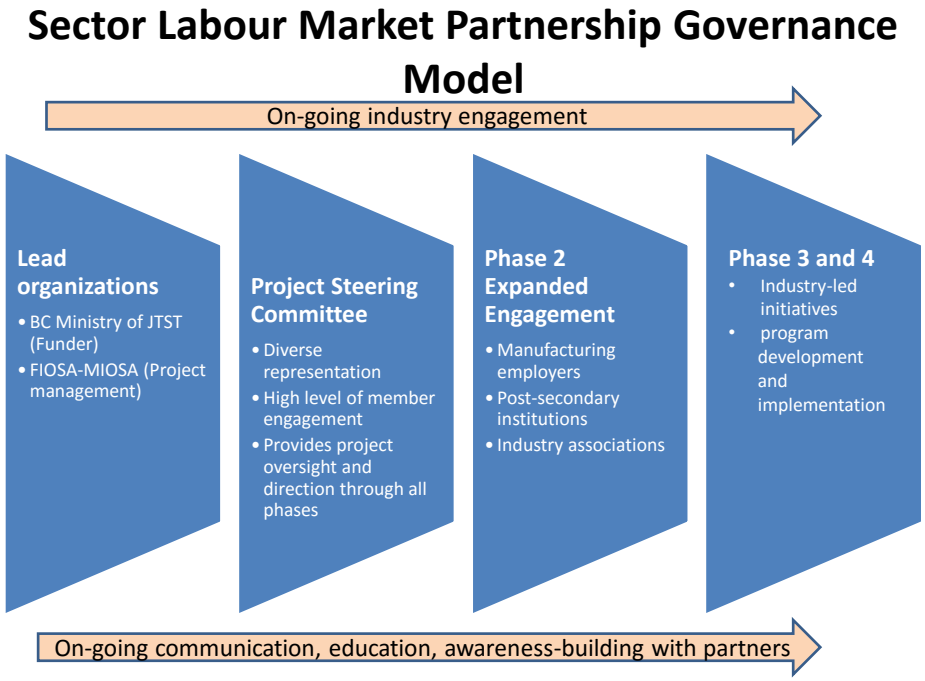
Steering Committee Terms of Reference

Date: June 7th, 2016

Lisa McGuire, CEO

Background

The governance model for all phases of the project is outlined below. It describes the lead organizations and the role of the steering committee in guiding each phase of the partnership. The terms of reference for the Steering Committee have been developed as part of the governance model.



Roles and Responsibilities of the Steering Committee

The role of the committee is to provide advice to the Alliance (the contractor) at every stage of the project. The Steering Committee will:

Review and make recommendations at all major phases of the project, including interim and final reports
Provide continuity between all phases of the project, particularly between Phase 2 and 3
Make recommendations for Phase 3 actions based on the results of the Phase 2 final report.

Responsibilities of the Steering Committee Chair

The Steering Committee Chair will be appointed by the Committee. A partner may put themselves forward or recommend another candidate for Chair. All nominations will be considered by the Steering Committee with candidates being given the opportunity to address the committee, should they wish. If more than one candidate has been proposed there will be a vote by show of hands or by secret ballot (whichever is requested). The candidate who receives the majority of the votes cast will be appointed Chair.

Administrative support to allow the Chair to successfully carry out his/her function will be provided by the Alliance.

The responsibilities of the Steering Committee Chair are as follows:

Sets and approves the agenda for each meeting in consultation with the Alliance
Ensures that agendas and supporting materials are delivered to partners in advance of meetings
Encourages broad participation from partners
Ensures partners participation meets agreed principles

Responsibilities of the Steering Committee

Individual Steering Committee partners have the following responsibilities:

Understand and champion the goals, objectives, and desired outcomes of the Sector Labour Market Partnership.
Lead by example.
Understand and represent the interests of all stakeholders.
Take a genuine interest in the outcomes and overall success of the Partnership.
Actively participate in meetings through attendance, discussion, and review of Minutes, papers and other Steering Committee documents.
Support open discussion and debate, and encourage fellow Steering Committee partners to voice their insights.

- Actively engage with stakeholders and their members or staff to increase participation in the research phases of the partnership.

Partnership

The table below lists the partners serving on the Steering Committee

The Committee reflects the diversity of the partners (e.g. different sizes of employers, union representation, post-secondary institutions, industry associations, regions).

Partners have been selected based on their specialist knowledge, ability to represent the interests of stakeholders, and to help resolves issues the partnership may face.

Ministry officials may attend committee meetings in an ex-officio capacity.

The committee may invite other stakeholder to participate in its meetings if the need arises, without those stakeholders becoming part of the committee

Name	Title	Organization
		BC Chamber of Commerce
Bernice Budz	Dean	BCIT School of Health Sciences
Dale Walker	VP Employer, Industry, & Worker Services	WorkSafeBC
Dan Reader	Chair President and CEO	BC Advisory Board, Canadian Manufacturers & Exporters/ Murray Latta Progressive Machine Inc.
Daneen Skilling	National Environmental, Health & Safety Manager	Andrew Peller Ltd.
Gareth Jones	Acting PCEO	Canadian Centre for Occupational Health & Safety
Glenda Beaulieu	Manager, Marketing and Events	Canadian Manufacturers & Exporters
James Donaldson	CEO	BC Food Processors Association
Kevin Thorburn	Supply Chain Manager	Nestle Waters Canada
Lisa McGuire	CEO	Manufacturing Safety Alliance of BC
Manu Nellutla	Director Research Programs and Development	Manufacturing Safety Alliance of BC
Paul Barton	Secretary-Treasurer	Teamsters Local Union 464
Renata King	Director of Business and Development	Northern Development Initiative Trust
		Vancouver Island Manufacturing Group
Sandra Oldfield	President and CEO	Tinhorn Creek Vineyards
Scott Bax	Senior Vice President Operations Member	Pinnacle Renewable Energy Inc. Manufacturing Advisory Group (MAG) Forest Industries
Wayne Tebb	Dean	KPU School of Business

Terms of Office

The Steering Committee is a working task committee of the Alliance. Individuals will ideally serve for the duration of the Sector Labour Market Partnership. Should a partner resign a replacement will be appointed in consultation with the departing partner, the Alliance and the Committee Chair.

The Committee will also carry out regular evaluations to ensure that the diversity of representation on the Committee remains relevant.

Quorum and Decision-Making

This section outlines how the Steering Committee will make decisions and the minimum number of partners (or quorum) required for a decision to be valid.

Quorum

Two thirds of the Steering Committee are required for decision-making purposes. Partners may submit their recommendation(s) by electronic means.

Decision-making Process

The Committee utilizes consensus where possible to make decisions but, in the event that consensus cannot be reached at any particular meeting, decisions shall be determined by a two thirds majority vote of the partners.

Meetings

Frequency

The committee will set its own meeting schedule to coincide with major milestones in the project. (It is anticipated that the committee will meet face to face semi-annually.) Committee advice to the Alliance will be ongoing.

Location

Meetings will be arranged at a convenient central location. Teleconferencing facilities will be provided wherever possible.

Participation Options

Partners are encouraged to attend meetings in person but may join a meeting via teleconference or utilize electronic media such as 'Go to Meeting' or Skype, where available. If unable to attend a meeting a partner can review any documentation circulated in advance of the meeting and submit comments in writing for consideration at the meeting.

Agenda, Minutes, and Decision Papers

Administrative support will be provided by the Alliance. A package will be sent to partners three to five business days in advance of a Steering Committee meeting.

This package will include the following:

Agenda for upcoming meeting
Minutes of previous meeting
Deliverables for review and approval
Any other documents/information to be considered at the meeting

manufacturing
Safety Alliance of BC

Canada
British Columbia

Funding provided through the Canada-British Columbia Labour Market Development Agreement.