manufacturing Safety Alliance of BC

OHS

OCCUPATIONAL HEALTH & SAFETY

STRATEGY DEVELOPMENT AND SUSTAINABILITY PLAN

Addressing Labour Market Issues for the BC Manufacturing Industry's OHS Profession

August 24, 2018

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

Prepared by the Manufacturing Safety Alliance of BC and Context Research Ltd.

The Manufacturing Safety Alliance of BC (the Alliance) is a not-for-profit, industry driven, industry-funded health and safety association for manufacturing and food processing companies in British Columbia.

Context Research Ltd. is a Vancouver based company, working with public and not-for-profit organizations across Western Canada and in Canada's north. The Firm specializes in strategic and program planning, communications and community engagement, and has worked with the Alliance on strategic and business planning since 2012.

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Contents

Introduction

In 2016, the Manufacturing Safety Alliance of BC (the Alliance) entered into an agreement through a Sector Labour Market Partnership (Sector LMP) with the British Columbia (BC) Ministry of Advanced Education, Skills and Training.

The Alliance's manufacturing Sector LMP project has since completed the first three phases of the five-phase program - Phase 1: Sector Engagement, Phase 2: Labour Market Information research and Phase 3: Strategy Development. The work completed sets the stage for Phases 4 and 5 - Strategy Implementation and Sector-led Evaluation, pending Ministry approval to proceed.

Phase 3 of the manufacturing Sector LMP project focuses on the development of a Strategic Plan to support industry in taking action to address key labour market issues concerning the occupational health and safety (OHS) profession identified in the Phase 2 labour market information (LMI) research report. The purpose of this project is to define the qualifications and core competencies for OHS professionals in BC that will inform the development of effective training tools and relevant career-path information for career seekers and employers alike.

Strategy development includes establishing a vision to guide implementation and priority actions (goals, strategic objectives and tactics) to improve the OHS profession in BC's manufacturing sector. It also addresses considerations for sustainability both during program design (Phase 4), and for ongoing program implementation – the outcome of the program design process.

Phase 3 was implemented over an eight-month period, from December 2017 to August 2018. Deliverables include a comprehensive Strategic Plan describing the project vision, goals, strategies and tactics proposed for implementation, a sustainability plan, logic model and evaluation framework. The strategy sets out the actions required to build a sustainable program for the OHS profession in BC's manufacturing sector, with the potential to broaden the program to include other industry sectors and other geographic regions (i.e., other provinces or a national program).

Phase 3 builds on industry consultations and LMI research completed in Phases 1 and 2, respectively. Additional consultations for Phase 3 were held between February and July 2018 with the project Steering Committee, industry representatives from across BC, and with national and international safety representatives. These consultations informed development of the strategic vision, and the goals, objectives and tactics that address four Strategic Areas: (1) Competency and Capability; 2) Training, Education and Accreditation; 3) Certification, and 4) Outreach and Communications. They also provided valuable advice on the considerations and requirements for the sustainability framework for both program design and implementation.

Funding to develop the strategy is provided through the Sector LMP program and administered by the BC Ministry of Advanced Education, Skills and Training. The content of this document has been prepared in accordance with the Strategy and Evaluation Guidelines for the Sector LMP program.

This document, approved by the project Steering Committee (Appendix A), presents the Phase 3 Strategy for addressing labour market issues for the BC manufacturing industry. It reflects the input and direction provided by the Steering Committee as well as the input gained from industry and practitioners in BC, Canada and internationally.

Background

The future of BC's manufacturing sector depends on how effectively companies meet several significant challenges. The nature of manufacturing work is changing, the manufacturing workforce is aging and becoming more diverse, the pace of technological change is accelerating, and economic globalization is evolving in unpredictable ways. Firms' response to these major trends will affect their growth potential. Equally important in this regard are the steps firms take to create and maintain healthy and safe workplaces, especially given that the challenges just noted will create new occupational health and safety (OHS) risks.

Manufacturing industries play a vital role in British Columbia's economy. In 2016, manufacturing contributed $16 billion to the provincial economy, accounting for 7.3% of the provincial GDP.[1] Employing 170,802 workers in 2017[2], manufacturing accounts for 7.1% of the provincial workforce. By 2027, it is projected to have 54,900[3] job openings.

Reducing the relatively high injury rate in BC's manufacturing sector is essential for the sector's continued success and its attractiveness to potential workers. This has become particularly urgent in the face of rising public and supply chain expectations for improved workplace safety, as well as increased oversight and regulation from WorkSafeBC.

In 2016-2017, the Sector LMP Program funded the Manufacturing Safety Alliance of BC to undertake an LMI study to conduct a quantitative and qualitative analysis of OHS professionals across BC's manufacturing sector, including a labour market forecast and economic trends report. The study also evaluated current educational and training programs for this occupation. The LMI report showed that there is no consensus on the body of skills and knowledge, professional designations or credentials required to be an OHS professional in BC, and Canada, and that there is a lack of consistency in training requirements and career path information for those wanting to enter the sector as an OHS professional. A comparative high dismissal rate of 44% was also reported, raising questions and concerns about hiring standards and practices amongst employers.

The LMI report recommended that the manufacturing sector come together to develop a consistent set of qualifications and core competencies for the OHS profession, along with creating more awareness, education and resources for career seekers and employers alike. Addressing these issues, will allow manufacturing firms to mitigate the OHS risks of an ever-evolving sector; help establish more robust and sustainable OHS management systems; reduce the current high turnover rate of OHS professionals in the province; and, ultimately, make manufacturing the safest industry to work in BC.

Moreover, Phase 3 of the project represents an opportunity for health and safety professionals outside of BC to provide valuable insight into the OHS profession, particularly important given that OHS standards developed in BC may provide the impetus for the creation of a national standard and certification system.

Additional information on the Sector Labour Market Partnership and the Phase 1 and Phase 2 reports are available online at: https://safetyalliancebc.ca/sector-labour-market-partnership/.

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[1] BCStats. (2018).BC GDP by Industry, 1997-2017. Retrieved August 1, 2018, from http://www.bcstats.gov.bc.ca/Files/d8149b30-05ef-41c0-bb987efaf9cddbbd/BCGDPbyIndustryChainedDollars1997-2015.xlsx

[2] WorkBC. (2018). Industry Outlook Profile, Manufacturing (NAICS1 31-33. Retrieved August 1, 2018, from https://www.workbc.ca/getmedia/e665c3eb-e703-4929-9d4d-5d68c3a79e4e/Profile-AggregatedIndustry-31-32-33-Manufacturing.pdf.aspx

[3] WorkBC. (2018). British Columbia Labour Market Outlook: 2017 Edition. Retrieved August 1, 2018, from https://www.workbc.ca/getmedia/66fd0e7c-734e-4fcb-b1a6-0454862525a6/BC_Labour_Market_Outlook_2017_Edition_Nov_2017.PDF.aspx

Methodology

The methodology for Phase 3 Strategy Development included analysis of the Phase 2 LMI report and extensive consultations with industry representatives and leaders in the field of OHS. The Steering Committee guided the Strategic Plan development, including how research and input from consultations was used to create the vision, guiding principles, goals, objectives and tactics, and the sustainability and evaluation framework. This section outlines the approach to consultations and key findings.

Identification of the Strategic Issues

Work in Phase 3 commenced with a review of the LMI report created in the previous phase. The strategic issues were identified and grouped into the following four categories:

1. A competency and capability framework for OHS professionals in the manufacturing industry
2. A training, education and accreditation structure and partnerships that support and enhance the competency and capability framework along with meeting the needs of industry and professionals
3. A certification process that reflects the competency and capability framework and captures education and training; technical knowledge; practical experience; soft skills; business acumen; and, leadership
4. An outreach and communications program that supports industry to commit to and use the competency and capability framework, training and certification that reflect the high standards of OHS professionals in the manufacturing industry

Validation through Consultations

To ensure that the strategy is relevant to and supported by industry, additional consultations with the Steering Committee, industry representatives and subject matter experts groups were incorporated into Phase 3 activities. The results are described in the following sections.

Steering Committee

Development of the Phase 3 Strategic Plan was guided by a Steering Committee consisting of representatives from industry, educational institutions, industry associations, WorkSafeBC, the Government of British Columbia, and coordinated by the Alliance (see Appendix A).

The Steering Committee first met in December 2017 to approve the Phase 3 work-plan and endorse the consultation program for strategy development. The Committee met again on February 2018 to develop the initial strategy framework. This framework included the elements of a draft vision, confirming strategic areas and drafting goal statements. At the same time, they provided direction on the industry consultations to confirm the issues, goal statements and possible actions.

The third Steering Committee meeting was held in April 2018. Its focus was to finalize the vision and goals for this project, to review the strategic objectives and tactics of the Strategy, and to begin defining both the implementation and sustainability frameworks to deliver the strategy outcomes to industry.

The fourth Steering Committee meeting was held in June 2018 to review estimated program costs and the sustainability and evaluation frameworks. The final Steering Committee meeting was held in July 2018 to approve the Strategic Plan for implementation.

Industry Consultations

In January and February 2018, BC manufacturing companies, including those that participated in the Phase 2 focus groups, were contacted and asked to participate in Phase 3 Strategy consultations. During February and March 2018, four regional focus groups and one meeting with national industry representatives were held to obtain input to the draft vision and goal statements, and to the priority issues. Meeting locations and participation are shown in Table 1. Additional information on the focus groups, including participants and companies represented, and detailed results of the input received, is included in a separate OHS Industry Consultation Report.

Table 1: Focus Group Sessions

DATE	SESSION	LOCATION	PARTICIPANTS
February 20, 2018	Workshop with Project Steering Committee	Richmond	7
March 1, 2018	Targeted Review with National Industry Reps	Regina, AB	4
March 1, 2018	Focus Group - Northern BC	Prince George	4
March 6, 2018	Focus Group - Okanagan	Kelowna	7
March 7, 2018	Focus Group - Lower Mainland	New Westminster	9
March 8, 2018	Focus Group - Vancouver Island	Nanaimo	5

Focus groups included professionals and leaders with OHS responsibilities from a wide range of industries—wineries, metal products fabrication, concrete and asphalt, and wood products manufacturing—from across Canada and the four regions of BC. Sessions lasted approximately three hours, and participants engaged in a structured discussion guided by a set of questions designed to assess the importance and relevance of each key issue to their business, OHS challenges in their organizations and their overall OHS priorities. They were also asked to review and provide input on the draft goal statements that were developed based on Steering Committee feedback.

Subject Matter Experts

To gain insight on existing professional standards, certification and accreditation systems, additional consultations were held with experts (Appendix B). These served to obtain feedback on the draft strategies, sustainability and evaluation framework. Experts included representatives from BC industries, and national and international representatives from industries outside of manufacturing that have implemented similar strategies.

Experts recognized the value of establishing a manufacturing OHS professional standard, including a process for accreditation and certification. Representatives from the Board of Canadian Registered Safety Professionals (BCRSP) and the Canadian Society of Safety Engineering (CSSE) supported an OHS capability framework established by the International Network of Safety and Health Practitioner Organizations (INSHPO) as a foundation[4]. Further discussions are planned with BCRSP, CSSE and other safety associations as part of program design for OHS professionals in BC's manufacturing industry.

[4] INSHPO (2017). The Occupational Health and Safety Professional Capability Framework: A global framework for practice. INSHPO. Park Ridge IL USA

Consultations Summary

Consultations across all groups identified that, in addition to technical skills gained through formal training and education, OHS professionals need both practical and soft skills, and business acumen to be effective in their role. They were universal in their expectation that 'on the job' learning must be part of OHS training programs to prepare professionals for success in the manufacturing sector. Participants also emphasized that ongoing professional development is a valued part of the OHS profession and should be included in the competencies and capabilities framework.

Participants generally supported a program that is voluntary and not mandatory or regulated. It was also noted that for a voluntary program to work, there needs to be a cultural shift to create buy-in and adoption among both business leaders and the workforce. OHS must be seen to add value to all aspects of a business for the industry to adopt the program.

The need to address how current OHS professionals will be credited with prior learning experience if applying for certification was also identified. This recognized that many people come to the OHS profession mid-career, and that OHS practitioners who have taken training and education courses require a career path to certification.

Industry also expressed the thought that any strategy developed must consider existing programs and infrastructure in order to learn from those programs and to potentially mitigate costs, implementation time, and associated risks. The potential to align standards for OHS professionals with other health and safety organizations, and at a broader regional and national level, was identified. In addition, program design needs to consider the requirements of a general OHS professional as the foundation for creating a more specific manufacturing credential program.

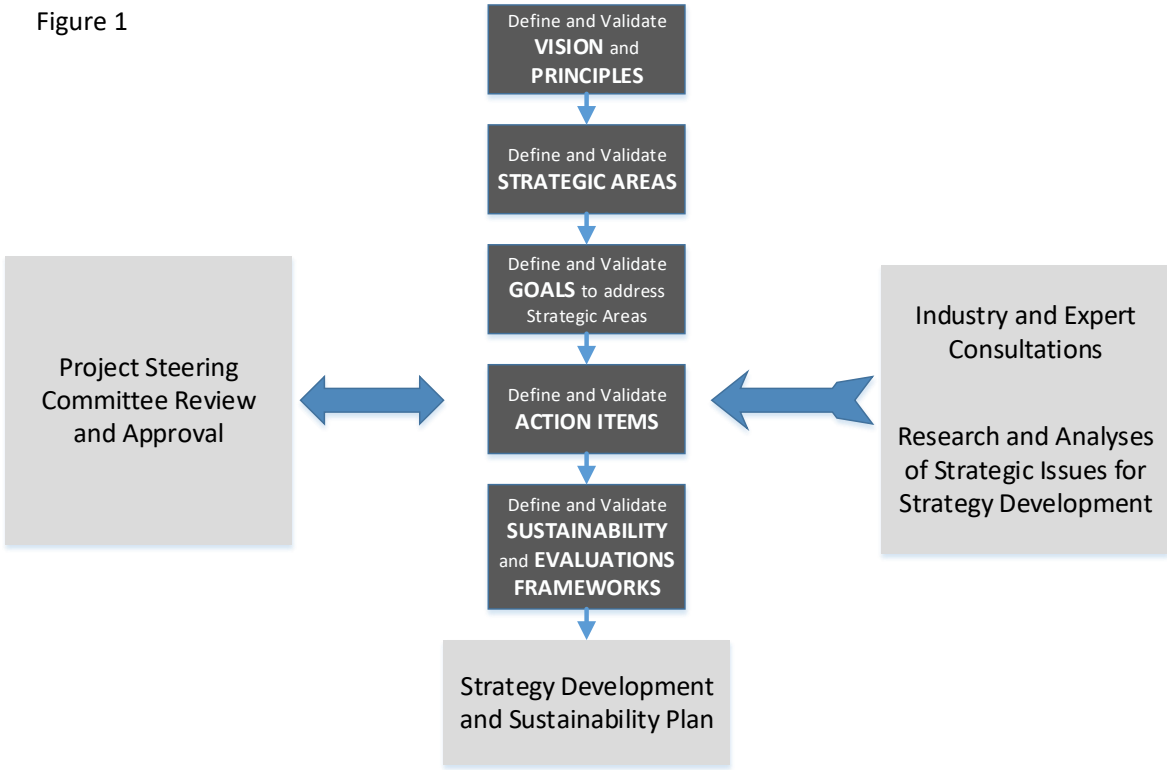
Participants in the consultations strongly supported the need for comprehensive communications and marketing both in program design and implementation. It was noted that this is essential for building industry awareness, support and participation in a manufacturing OHS professional program.

Determination of Strategy Components

After validation of the strategic issues by the Steering Committee and industry representatives, the strategy development process focused on four strategic areas. From those strategic areas, the following components of the Strategy evolved in consultation with industry and the Steering Committee (Figure 1):

1. Strategic Plan
    a. A Vision for the OHS profession in BC's manufacturing industry
    b. Principles that will guide strategy implementation and the role of the OHS professional in manufacturing
    c. Strategic Areas identified to address labour market issues
    d. Goals, aligned with the vision and guiding principles, that address the Strategic Areas
    e. Action items—strategic objectives and tactics that address their respective goals around which the Strategic Plan has been built. Also included are: identified parties that take the lead role for implementation of the tactics; and, the timeline that, over a period four years, utilizes an approach to initiate tactics in a logical sequence and, where applicable, subject to dependencies between tactics and available resources.
2. Sustainability Plan to ensure the success of program design and implementation
3. Evaluation Framework shows how specific program activities lead to desired results

Figure 1



Consultations confirmed that the approach is practical and addresses the challenges facing BC's manufacturing OHS profession. The Strategy components are further explored in the following sections.

Strategic Plan

Vision

Drafting the Strategic Plan vision was one of the first tasks for the Steering Committee at the February 2018 workshop. The Steering Committee reviewed examples of vision statements with each example having a different focus or emphasis.

Steering Committee members provided recommendations on key phrases or aspects from the examples that should be considered in a draft vision. The draft vision was then incorporated into the industry consultations for discussion and input. Finally, based on the input received, an updated vision statement was presented to the Steering Committee at the April 2018 meeting where it was approved as:

> *A manufacturing OHS professional supports the development of a culture of safety and well-being, making the BC industry the safest place to work*

Guiding Principles

Guiding principles govern how the Strategic Plan is implemented. The Steering Committee approved the following seven guiding principles:

1. Occupational health and safety (OHS) is recognized as an integral part of manufacturing business success
2. The OHS profession continuously evolves to reflect changing occupational health & safety needs and priorities of industry and the workforce
3. OHS professionals create a culture of safety and well-being across the industry
4. Certification of OHS professionals within the manufacturing sector is the model of excellence for the overall profession
5. OHS professionals, recognized for their practical experience, competencies and professional capability, are a sought after and regionally accessible resource
6. OHS professional certification is supported by a skills-based competency model and standards-based education and training model
7. OHS training and education is broadly accessible within BC with consistent standards managed through an accreditation process.

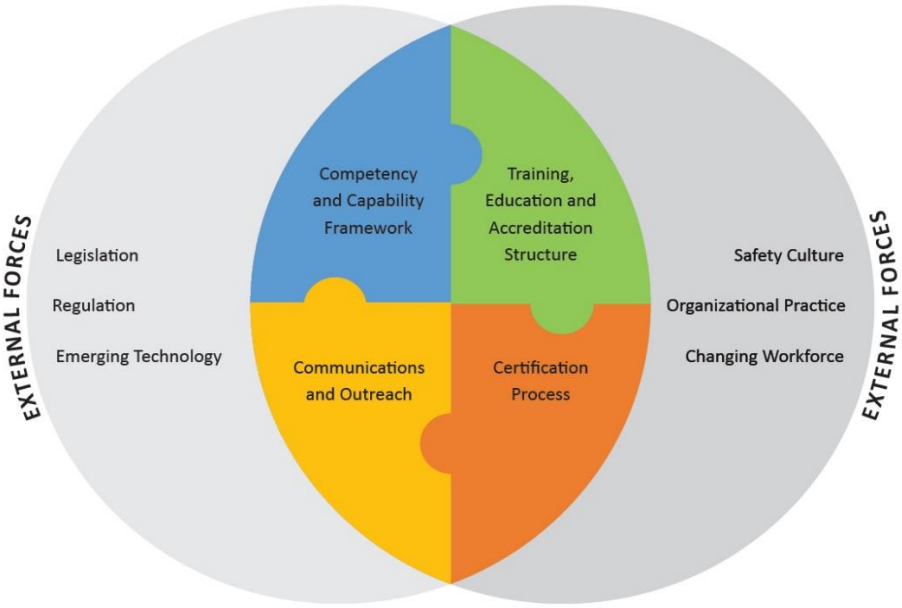
Strategic Areas

Based on the labour market issues report, four strategic areas were identified: 1) Competency and Capability; 2) Training, Education and Accreditation; 3) Certification, and 4) Communications and Outreach.

The strategic areas, confirmed by the project Steering Committee and validated through industry focus groups, have been addressed in the development of the Phase 3 Strategic Plan; actions have been identified and prioritized to address workforce issues substantiated through labour market research.

Figure 2, below, shows the interrelationship between the four strategic areas, and external factors, such as regulations, technology and organizational influencers, that continuously impact the OHS environment in manufacturing.

Figure 2



Action Items

Action items within the following pages were developed to address the labour market issues identified over a four year time period The tables are organized by the four strategic areas: 1) Competency and Capability; 2) Training and Education; 3) Certification, and 4) Communications and Outreach. They reflect the direction and priorities of the Steering Committee, validated through industry and expert group consultations.

Action items, for each strategic area, include the following:

- Goal statement
- Strategic objectives for achieving each goal
- Implementation tactics to achieve the objectives
- Timeline for implementing each tactic
- Primary lead role for the implementation of each tactic

Due to the interdependency of the four strategic areas, prioritization has not been assigned. Implementation across all four strategic areas will be concurrent due to the interrelationship between different goals and objectives, and the importance of building a fully integrated and sustainable OHS program.

Strategic Area 1	**OHS Professional Qualifications and Core Competencies**		
Goal	To create a manufacturing industry OHS competency and capability framework that will standardize qualifications, skills, knowledge, abilities and professionalism		
Strategic Objectives	Tactics	Timeline	Role
(1.1) Establish and maintain a Competency Advisory Body to oversee the development of the Manufacturing OHS Competency and Capability Framework (hereby referred to as the Competency Framework)	Create and maintain an advisory body that includes a broad number of stakeholders: • OHS professionals • industry representatives • regulators • educators • other experts as determined by the Steering Committee to advise on/provide input to: • a comprehensive catalogue/listing of the health & safety risks and controls relevant to both the general OHS profession and manufacturing- specific OHS profession • the structure of the Competency Framework, including competencies that overlap between general OHS and manufacturing OHS competencies and capabilities and manufacturing specific content • a governance framework for managing and maintaining the Competency Framework including long term sustainability and functions • a continuous improvement process, related to the changing needs of the industry, regulations and technology, operation/management of the Competency Framework	Start in Month 1 Finish in Year 2	Contract Holder with consultation and approval from Steering Committee

Strategic Area 1	**OHS Professional Qualifications and Core Competencies**		
Goal	To create a manufacturing industry OHS Competency Framework that will standardize qualifications, skills, knowledge, abilities and professionalism		
Strategic Objectives	Tactics	Timeline	Role
(1.2) Establish an inventory of health and safety risks and controls for the general OHS profession	Research, identify and map an inventory to: • develop a knowledge base of industry best practices • define risk and control across jurisdictions (regions and provinces) • define non-technical skill application across jurisdictions (regions and provinces)	Start in Month 1 Finish in Year 1	Contractor with oversight from Competency Advisory Body
(1.3) Establish an inventory of health & safety risks and controls specific to the manufacturing OHS profession	Research, identify and map an inventory to: • develop a knowledge base of best practices and gaps in manufacturing • define risk and control across jurisdictions (regions and provinces) • define non-technical skill application across jurisdictions (regions and provinces)	Start in Month 1 Finish in Year 1	Contractor with oversight from Competency Advisory Body
(1.4) Establish an OHS Competency Framework required for the OHS profession in the manufacturing industry	Research OHS competency and capability requirements that consider: • Occupation levels • Organizational dynamics • Sub-sectors of manufacturing • Regions • Company size • Other specialized areas of manufacturing	Start in Month 1 Finish in Year 1	Contractor with oversight from Competency Advisory Body

Strategic Area 1	**OHS Professional Qualifications and Core Competencies**		
Goal	To create a manufacturing industry OHS Competency framework that will standardize qualifications, skills, knowledge, abilities and professionalism		
Strategic Objectives	Tactics	Timeline	Role

	Define the competency and capability requirements for OHS focus as outlined above, pertaining, but not limited, to:
	• technical skills
	  o OHS knowledge
	• non-technical skills
	  o business acumen
	  o administration/ leadership
	  o communication
	  o personal attributes
	• practical skills
	• direct experience
		Start in Year 1
		Finish in Year 2
			Contractor with oversight from Competency Advisory Body

	Validate the Competency Framework through consultations with industry, relevant associations, experts and key stakeholders.	Start in Year 1 Finish in Year 2	Contractor with oversight from Competency Advisory Body
	Finalize the Competency Framework for adoption by industry and key stakeholders as a foundation for training and education program standards.	Start in Year 1 Finish in Year 2	Steering Committee and Contract Holder with consultation from Competency Advisory Body

Strategic Area 1	**OHS Professional Qualifications and Core Competencies**		
Goal	To create a manufacturing industry OHS Competency Framework that will standardize qualifications, skills, knowledge, abilities and professionalism		
Strategic Objectives	Tactics	Timeline	Role
(1.5) Establish a continuous improvement model for the Competency Framework.	Research options and select model for continuous improvement of the Competency Framework	Start in Year 1 Finish in Year 2	Contractor with oversight from Competency Advisory Body
	Validate continuous improvement model through consultations with industry, relevant associations, experts and key stakeholders.	Start in Year 2 Finish in Year 2	Contractor with oversight from Competency Advisory Body
	Finalize the continuous improvement model for adoption by industry and key stakeholders	Start in Year 2 Finish in Year 2	Steering Committee and Contract Holder with consultation from Competency Advisory Body
(1.6) Establish a governance framework for long term sustainability and functions	Research options and select model for governance and sustainability of the Competency Framework	Start in Year 2 Finish in Year 3	Contractor with oversight from Competency Advisory Body
	Validate governance model through consultations with industry, relevant associations, experts and key stakeholders.	Start in Year 2 Finish in Year 3	Contractor with oversight from Competency Advisory Body
	Finalize the governance model for adoption by industry and key stakeholders	Start in Year 2 Finish in Year 3	Steering Committee and Contract Holder with consultation from Competency Advisory Body

Strategic Area 2	**OHS Professional Training, Education and Accreditation**		
Goal	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry		
Strategic Objectives	Tactics	Timeline	Role
(2.1) Establish and maintain an Accreditation Advisory Body that will oversee the development of the initial education and training standards linked to the Competency Framework	Advisory Body should include: • education and curriculum specialists • OHS professionals • industry representatives • regulators • other experts as determined by the Steering Committee and, will advise on the development of standards and accreditation system for education and training curriculum required to meet the Competency Framework; and, will ensure that training, education and accreditation program standards consider: • Occupation levels • Organizational dynamics • Sub-sectors of manufacturing • Regions • Company size • Other specialized areas of manufacturing	Start in Year 2 Finish in Year 4	Contract Holder with approval from Steering Committee

Strategic Area 2	**OHS Professional Training, Education and Accreditation**		
Goal	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry		
Strategic Objectives	Tactics	Timeline	Role
(2.2) Link the standards for OHS training and education in the manufacturing sector to the general OHS training and education standards	☐ Develop a process for establishing training and education program standards that support the OHS generalist profession ☐ Map the relationship between generalist and manufacturing OHS professional ☐ Develop mechanisms for curriculum approval within the Manufacturing OHS training and education organizations while ensuring effective linkage to the general OHS profession	Start in Year 2 Finish in Year 2	Contractor with oversight from Accreditation Advisory Body
(2.3) Establish program standards for OHS training and education to support certification for OHS in manufacturing	☐ Develop program standards to meet the Competency Framework requirements and address: • a means to evaluate alignment of the knowledge to the Competency Framework • the effectiveness and relevance of delivery and learning methodologies • a means to qualify instructors and training institutions delivering the Competency Framework components • maintaining linkages to general OHS competencies • a means of providing and assessing practical experience linked to the Competency Framework • quality controls and assurance for the education and training processes. • a means to update curriculum to maintain alignment to the Competency Framework as it evolves • validate the draft training and education program standards with educators, industry, relevant associations, experts and key stakeholders	Start in Year 2 Finish in Year 3	Contractor with oversight from Accreditation Advisory Body

Strategic Area 2	**OHS Professional Training, Education and Accreditation**		
Goal	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry		
Strategic Objectives	Tactics	Timeline	Role
	Pilot Competency Framework standards based education and training program	Start in Year 2 Finish in Year 3	Education Provider(s) with oversight from Accreditation Advisory Body
	Evaluate Competency Framework standards pilot and adjust as needed	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Finalize OHS professional training and education program standards	Start in Year 3 Finish in Year 4	Steering Committee and Contract Holder with consultation from Accreditation Advisory Body
(2.4) Establish a continuous improvement model for the education and training standards	Develop performance standards and processes to evaluate the effectiveness of training programs and outcomes	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Develop a system to monitor and evaluate the results of training and education programs and adjust as required to meet industry and workplace/workforce needs.	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Develop a feedback mechanism to solicit feedback from industry and professionals	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Develop a mechanism to evaluate the graduate outcomes to assess effectiveness as an OHS resource to support industry	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body

Strategic Area 2	**OHS Professional Training, Education and Accreditation**		
Goal	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry		
Strategic Objectives	Tactics	Timeline	Role
(2.5) Establish an accreditation system for training and education providers (includes adoption by Training and Education institutions)	☐ Research and evaluate accreditation processes and bodies for training and education providers and programs	Start in Year 2 Finish in Year 3	Contractor with oversight from Accreditation Advisory Body
	☐ Develop accreditation criteria and process for Manufacturing OHS education and training programs	Start in Year 2 Finish in Year 3	Contractor with oversight from Accreditation Advisory Body
	☐ Develop quality assurance to evaluate training institutions programs against the accreditation criteria	Start in Year 3 Finish in Year 3	Contractor with oversight from Accreditation Advisory Body
	☐ Develop an application and assessment process for training institutions seeking accreditation	Start in Year 3 Finish in Year 3	Contractor with oversight from Accreditation Advisory Body
	☐ Form an accreditation body	Start in Year 3 Finish in Year 4	Steering Committee and Contract Holder with consultation from Accreditation Advisory Body
	☐ Develop a framework to evaluate the accreditation criteria and model and adjust as necessary	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	☐ Finalize the accreditation process	Start in Year 3 Finish in Year 4	Steering Committee and Contract Holder with consultation from Accreditation Advisory Body

Strategic Area 2	**OHS Professional Training, Education and Accreditation**		
Goal	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry		
Strategic Objectives	Tactics	Timeline	Role
(2.6) Establish a governance framework for the accreditation of education and training programs including long term sustainability and functions	Research options and select a governance framework and sustainability model that will support accreditation of education and training programs	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Validate governance model through consultations with industry, relevant associations, experts and key stakeholders	Start in Year 3 Finish in Year 4	Contractor with oversight from Accreditation Advisory Body
	Finalize the governance model for adoption by industry and key stakeholders	Start in Year 3 Finish in Year 4	Steering Committee and Contract Holder with consultation from Accreditation Advisory Body

Strategic Area 3	**Certification: Standardization and Oversight of the OHS Professional**		
Goal:	To design an OHS certification process for manufacturing that is a benchmark for OHS excellence around the world and among professionals and practitioners, training institutions and employers		
Strategic Objectives	Tactics	Timeline	Role
(3.1) Establish and maintain an Advisory Body to oversee the design of the certification program (hereby known as the Certification Program), linked to the Competencies Framework and Education and training Standards	☐ Create an Advisory group that includes: • industry representatives • government • Regulators • educators • other experts as determined by the Steering Committee To advise on the process, requirements and content of a certification process	Start in Year 2 Finish in Year 4	Contract Holder with approval from Steering Committee
(3.2) Establish a Certification Program model linked to the Competencies Framework and Education and Training Standards, with considerations for continuous professional learning and practical experience, for both current and new professionals	☐ Research and evaluate possible models for design and delivery of professional certification for OHS personnel in the manufacturing sector	Start in Year 2 Finish in Year 2	Contractor with oversight from Certification Advisory Body
	☐ Incorporate Competencies and Accreditation Frameworks into the design of the Certification Program • Ensure the certification model fits/adapts to: o Occupation levels o Organizational dynamics o Sub-sectors of manufacturing o Regions o Company size o Other specialized areas of manufacturing	Start in Year 3 Finish in Year 3	Contractor with oversight from Certification Advisory Body

Strategic Area 3	**Certification: Standardization and Oversight of the OHS Professional**		
Goal:	To design an OHS certification process for manufacturing that is a benchmark for OHS excellence around the world and among professionals and practitioners, training institutions and employers		
Strategic Objectives	Tactics	Timeline	Role
	Include a certification approval mechanism in the framework based on the competency and capability criteria as delivered through the accreditation process for the OHS profession in the Manufacturing industry while defining the relationship within the OHS certification generalist process	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Validate the certification program through consultations with industry, relevant associations, experts and key stakeholders	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Evaluate the certification program and adjust as needed	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Finalize the certification program for adoption by industry and key stakeholders as a foundation for OHS professionalism and professional development in Manufacturing	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Form Certification Body	Start in Year 3 Finish in Year 4	Steering Committee and Contract Holder with consultation from Certification Advisory Body
(3.3) Establish mid-career transition processes for current and practicing OHS professionals in manufacturing	Develop program focused on OHS professionals, owners/operators, students and people in mid-career transition to outline pathways to participate in certification as an OHS professional in manufacturing	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body

Strategic Area 3	**Certification: Standardization and Oversight of the OHS Professional**		
Goal:	To design an OHS certification process for manufacturing that is a benchmark for OHS excellence around the world and among professionals and practitioners, training institutions and employers		
Strategic Objectives	Tactics	Timeline	Role
(3.4) Establish continuous improvement process for OHS certification	Develop continuous improvement framework (metrics, indicators, processes) to evaluate the effectiveness and success of the OHS professional certification on a regular basis including alignment with evolving competencies and capabilities	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Evaluate the continuous improvement process and update as necessary	Start in Year 3 Finish in Year 4	Contractor with oversight from Certification Advisory Body
(3.5) Establish a Certification Body governance framework to support the certification program	Research options and select a governance framework and sustainability model that will support accreditation of education and training programs. Framework should include: • Operation of certification program • continuous professional development for maintenance of certification for professionals • Ethics and Compliance program for OHS professionals • The roles, relationships and overarching and governance structures for all manufacturing OHS professional program components (Competencies Framework, Accreditation Model, and Certification Program)	Start in Year 4 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Validate governance model through consultations with industry, relevant associations, experts and key stakeholders	Start in Year 4 Finish in Year 4	Contractor with oversight from Certification Advisory Body
	Finalize the governance model for adoption by industry and key stakeholders	Start in Year 4 Finish in Year 4	Steering Committee and Contract Holder with consultation from Certification Advisory Body

Strategic Area 4	**Communication and Outreach**		
Goal	To ensure that the OHS professional certification program for manufacturing is known, recognized and adopted by industry in BC and across Canada		
Strategic Objective	Tactics	Timeline	Role
(4.1) Establish a marketing and communication strategy for the manufacturing OHS professional program and its three components (Competencies Framework, Accreditation Model, Certification Program) that: - Demonstrates the economic and social value of well-trained OHS Professionals - Builds awareness of the Competencies Framework as the recognized standard for OHS personnel in manufacturing, with both entry and mid-career transition opportunities. - Builds the knowledge of, and capacity for, the Competencies Framework, Accreditation Model and Certification Program for the purposes of recruitment and retention - Promotes accredited education and training programs as the career path for people entering and progressing through OHS accreditation within the manufacturing sector	Research and develop: • Comprehensive and long-term communication and engagement program that targets public, industry and professionals to build awareness, support and industry wide adoption. • Targeted communications related to: o Occupation levels o Organizational dynamics o Sub-sectors of manufacturing o Regions o Company size • Other specialized areas of manufacturing Comprehensive marketing program to promote the OHS Accreditation Model and the Certification Program • Communications plan to expand awareness of the OHS career opportunities and career path for manufacturing • Communications plan to identify/market transition/pathways for current professionals to complete certification • Brand elements/components for promoting the certification. Incorporate the brand into an industry-wide marketing and communications program	Start in Year 1 Finish in Year 2	Contractor with oversight from Steering Committee and Contract Holder

Strategic Area 4	**Communication and Outreach**		
Goal	To ensure that the OHS professional certification program for manufacturing is known, recognized and adopted by industry in BC and across Canada		
Strategic Objective	Tactics	Timeline	Role
	☐ Create, distribute and promote the ROI/Business case for OHS professionals/leadership/culture that applies to each of the following: • All business sizes (Small to large) • OHS as a business value • OHS as an operations value • OHS as a corporate social responsibility (CSR) • BC initially but with potential expansion to different regions • Training, education and certification • Recruitment values/enticement/competitiveness	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder
	☐ Promote the OHS competency and capabilities framework as the standard for a career in OHS in manufacturing and its relationship to the general OHS profession	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder

Strategic Area 4	**Communication and Outreach**		
Goal	To ensure that the OHS professional certification program for manufacturing is known, recognized and adopted by industry in BC and across Canada		
Strategic Objective	Tactics	Timeline	Role
	Develop an information/ outreach program to build uptake among: • Current OHS practitioners • HR professionals • Small and medium business owners • Business managers and leaders	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder
	Build an HR 'toolkit' for recruitment, hiring and retention of mid-career and entry level professionals based on the competency and capabilities framework	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder
	Integrate the HR toolkit into an online platform and ongoing communications and resources • Develop information program focused on HR professionals • Develop and host 'event' (e.g., travelling information meetings/events)	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder
	Communicate the OHS certified professional standard to the HR association body (HRMA) and provide outreach and information sessions to raise awareness of the new standard Integrate certified OHS Professional specialized for manufacturing within the HR training programs and curriculum	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder

Strategic Area 4	**Communication and Outreach**		
Goal	To ensure that the OHS professional certification program for manufacturing is known, recognized and adopted by industry in BC and across Canada		
Strategic Objective	Tactics	Timeline	Role
	Target education leaders to participate in the accreditation program	Start in Year 1 Finish in Year 3	Contractor with oversight from Steering Committee and Contract Holder
	Work with the Ministry of Education, Ministry of Advanced Education, Skills and Training, post-secondary institutions and industry to: • Promote OHS as a career opportunity for youth and mid-career entry demographics • Identify work experience opportunities for students interested in OHS	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder
	Establish and promote professional standards as a basis for hiring, training, job placement and certification.	Start in Year 1 Finish in Year 4	Contractor with oversight from Steering Committee and Contract Holder

Sustainability Plan

Sustainability refers to the ability to be self-supported, upheld or confirmed; its goal is to achieve long-term balance. Sustainability considerations to support the OHS professional program, detailed in the sections below, focuses on program design and its implementation.

While sustainability for both design and implementation will be initially directed to the manufacturing sector, it is recognized that addressing labour market issues concerning the OHS professional across all sectors and beyond BC could have significant value to the profession and for improving workplace safety. A broader regional or national OHS professional program would enable greater labour force mobility and could be more cost effective compared to having multiple systems of credentials and safety organizations. The potential to scale the program beyond manufacturing and beyond BC will be determined during the program design phase (i.e., Phase 4).

The program design phase will also include research to determine the most effective sustainability model for program implementation. Sustainability considerations for program design and implementation are outlined in the following discussion.

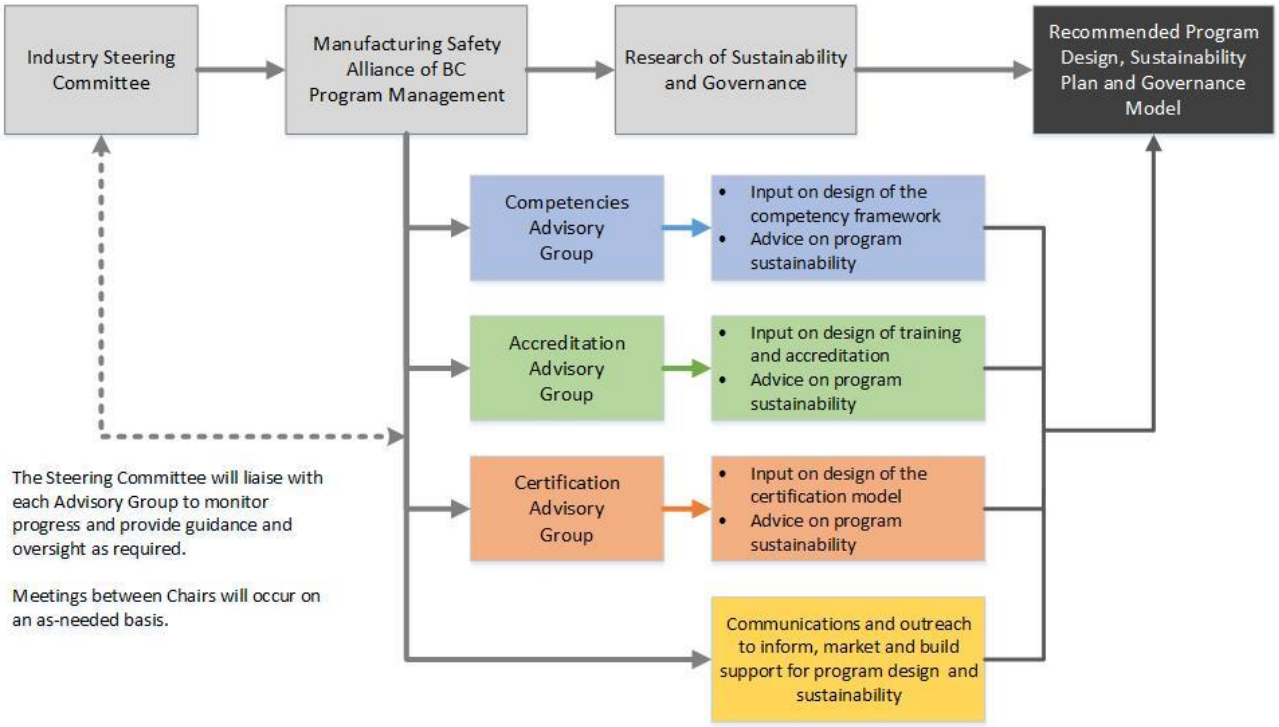
Program Design Considerations

Building the program for OHS professionals needs to be managed by a well-established organization and a structure that includes industry representation and the advice of experts and partners. The Manufacturing Safety Alliance of BC (the Alliance) is uniquely qualified to fulfill this role. The Alliance's mission is directly aligned with the project vision of standardizing the OHS profession in manufacturing, and it has a well-established network of industry and OHS experts.

The Alliance will project manage implementation of the strategy through Phase 4, and will work in consultation with industry, organizations with existing certification programs (e.g., BCRSP, CSSE), training and education institutions, and experts. Figure 3 shows a proposed high-level structure to guide program design.

An industry Steering Committee, for Phase 4, will provide oversight to program design. Advisory groups will also be setup to guide the work program for each strategic area. Membership will include representatives from industry and experts as required to help build the competency framework, accreditation model and certification program. The Chair of each advisory body will participate on a strategic area oversight committee to ensure integration across all strategy areas for program design.

Figure 3: Program Design Structure



Marketing and Communications

The success of the program rests on the support and uptake of industry. During program design, substantial resources will be assigned to inform industry and build support for standardization and certification of OHS professional qualifications.

Communication and outreach during program design will be focused on the entire manufacturing industry. Marketing to promote applications for certification will be targeted first at the larger employers to build program exposure and momentum. With medium and large employers signing on, it is anticipated that the profile and credibility of the program will draw in more OHS practitioners who will recognize the value of the program for career development.

Other health and safety certifying organizations (e.g., BCRSP, CSSE) will also be engaged to determine the potential to expand the program to include all OHS professionals in BC and across sectors. The results of these consultations will determine how the program should be designed, and on what scale – provincial or national.

Roles and Functions

Program design functions and high-level cost estimates are summarized below for each entity with a lead role in designing the OHS professional program for: Industry Steering Committee, Contract Holder, Advisory Bodies and Contractors.

Industry Steering Committee

DESCRIPTION	The ~10 member committee is the approval and decision-making body for the Strategic Plan implementation; and, • will provide input and advice on Strategic Plan implementation, sector-led evaluation and the successful design of a program to address key labour market issues pertaining to OHS professionals in the manufacturing sector • will be comprised of manufacturing industry representatives, and relevant subject matter experts based on membership criteria outlined by the previous phase's Steering Committee. New members, if gaps in representation are identified, are approved by the Chair and in consultation with the Alliance • will meet 4-6 times per year to provide input into the progress of program design; two meetings with the Advisory Body Chairs and the Steering Committee Chair are anticipated annually
SUSTAINABILITY FUNCTIONS	• Oversee, in conjunction with the Alliance, the development of the program design and ensure its alignment to industry's needs, goals and objectives • Provide regular feedback, support and direction to the Alliance; • Provide oversight and leadership to Advisory Bodies in delivering each tactic within the Strategic Plan • Provide oversight on the Communications and Outreach strategy as defined within the project deliverables and timelines • Support quality assurance processes to ensure the program design reflects industry needs and meets the vision, goals and objectives outlined in the Strategic Plan
ESTIMATED COST	• Quarterly meetings requiring travel and accommodation • Venue rental and food costs are estimated at $1,900 per meeting

Contract Holder / Manufacturing Safety Alliance of BC (the Alliance)

DESCRIPTION	• The Alliance will provide project management oversight for Strategic Plan implementation, sector-led evaluation and the successful design of a program to address key labour market issues pertaining to OHS professionals in the manufacturing sector • The Alliance will assign a full-time project manager with support and will leverage its staff and resources to coordinate project implementation, facilitate communications/ meetings between parties, and contractor management
SUSTAINABILITY FUNCTIONS	• Provide overall project management and coordination • Report and be accountable to funding partners and Steering Committee • Assist, in conjunction with the Steering Committee, the development of the program design and ensure its alignment to industry's needs, goals and objectives • Accountable for meeting deliverable timelines, cost and risk management • Provide assistance to the Steering Committee for the development of the Communications and Outreach strategy as defined within the project deliverables and timelines • Leverage the Alliance's communication systems to build industry awareness and support for the program design • Leverage funding sources to support program design and strategy implementation • Finalize an organizational model to successfully implement and manage the program on an on-going basis
ESTIMATED COST	Administration costs that include a full time project manager ($120,000/annum includes overhead); part- time staff support for research, communications, administration and logistics (combined $180,000/annum)

Advisory Bodies

DESCRIPTION	• Three Advisory Bodies, reporting to the Steering Committee, will be established to guide and provide advice to the Contractor on the development of a: 1) Competency Framework, 2) Accreditation System, and 3) Certification Program • Each Advisory Body may be comprised of 5-7 individuals, adequately representing industry and expertise based on a criteria outlined though the Steering Committee and in consultation with the Alliance, in the strategic area under consideration • Each Advisory Body will have a Chair that participates in meetings with other Chairs, as required, to promote cross collaboration and support continuity. The Chairs are responsible to report back to the Steering Committee and Contract Holder • Each Advisory Body will meet approximately 6 times per year to provide advice on program design
SUSTAINABILITY FUNCTIONS	• Ensure industry specific needs are being addressed, and that the design accurately addresses industry requirements • Provide input on sustainability requirements for each strategic area, and for consideration in the design of the program implementation sustainability model • Leverage knowledge and relationships from applicable areas (e.g., learning institutions) to help streamline implementation • Help to inform and educate industry through outreach activities • Provide oversight to contractors in delivering each tactic within the Strategic Plan • Provide regular updates and status reports to the Contract Holder and Steering Committee • Provide recommendations on the program implementation management models • Provide quality assurance to ensure that the program design reflects industry needs and meets the tactics outlined under each strategic objective within the Strategic Plan • Advise on the Communications and Outreach strategy as defined within the project deliverables and timelines
ESTIMATED COST	• Estimated 4 meetings per year per Advisory Body with support for travel and accommodation • Two meetings with the Advisory Body Chairs and the Steering Committee are projected • Venue rental and food costs are estimated at $1,500 per meeting per advisory body

Contractor

DESCRIPTION	• An expert or specialist (individual or group) that is contracted by the Alliance to support the implementation of tactics in the Strategy • Contractor is selected through a request for proposal process. Eligibility, selection and award criteria will be directed by the Steering Committee, in consultation with the Alliance and the Advisory Body
SUSTAINABILITY FUNCTIONS	• Implement tactics under the Strategic Plan and provide recommendations to the Advisory Body • Accountable for meeting deliverable timelines, cost and risk management • Leverage knowledge and relationships into applicable areas to help streamline implementation • Provide regular updates and status reports to the Contract Holder and Advisory Bodies, where applicable • Support quality assurance processes to ensure the program design reflects industry needs and meets the tactics outlined under each strategic objective within the Strategy and Sustainability Plan • Provide recommendations, where relevant, to the Communications and Outreach strategy and the Implementation Framework within each strategic area
ESTIMATED COST	• Additional consultant costs are estimated at $1,000 per day, with total costs varying by tactic based on the combination of contractor and staff hours. • Overall contractor fees are estimated by tactic

Financial and Resource Requirements (Preliminary Costs Summary for four-year program)

Strategic Area	Total Estimated Cost	Total Estimated Hours
OHS Professional Qualifications and Core Competencies	$238,168	1,890
OHS Professional Training, Education and Accreditation	$494,869	4,088
Certification: Standardization and Oversight of the OHS Professional	$284,175	2,135
Communication and Outreach	$562,692	5,390
Steering Committee	$108,960	
Continuous Improvement	$138,846	1,330
Evaluation	$317,154	3,038
Governance	$175,385	1,680
Administration[5]	$1,200,000	-
Total Program Design Cost Estimate	**$3,520,248**	**19,551**

[5] As outlined on page 28 under contract holder Estimated Cost

Program Implementation Considerations

A key outcome of the program design phase will be a recommended sustainability model for implementation of the OHS professional program. This will address all four key areas: (1) competency framework; (2) accreditation model; (3) certification program; and, (4) ongoing communications and outreach to ensure strong uptake across the OHS profession and the manufacturing sector.

The design of the sustainability framework for program implementation is addressed during the following discussion.

Competency Framework Standards Board

Required competencies and capabilities to become a certified OHS professional will be defined during the program design phase. Once the competency framework is established, it will need to be managed to ensure it remains relevant to the changing needs of industry as well as changes in technology, learning processes and workforce demographics. A competency 'Standards Board' or committee is recommended to monitor and ensure the competency framework remains relevant.

An OHS professional Standards Board, or equivalent body as determined by the outcome of the program design phase, would have the following types of functions:

- Establish the core professional education and training requirements for OHS professionals with manufacturing-specific requirements. The initial focus will be on OHS professionals in BC, but with considerations for expansion
- Advise training and education institutions on training and education program design. This will include administering accreditation reviews of learning institutions and programs, as well as prior learning assessments, and establishing and periodically reviewing the eligibility of candidates with qualifications from other programs (e.g., CSSE, BCRSP, CSHC, etc.)
- Establish a continual improvement process for education and training standards
- Managing the accreditation program (management of the accreditation of formal OHS profession training and education programs directed at certification)
- Incorporate, where applicable, expansion within the framework for the OHS profession at a national level
- Work closely with the certification process to ensure that candidates have the qualifications (education, training and practical expertise) to be eligible for certification

Education, Training and Accreditation

OHS professional training and education will be delivered by accredited education institutions and training providers. To be accredited, all institutions and training providers must demonstrate that they meet the requirements set by the Standards Board and based on the competency framework.

An individual striving to become an OHS certified professional will seek out accredited training and education programs to meet the requirements defined by the competency framework and for certification eligibility. Public and private sector organizations and institutions will provide the required training and education on a fee-for-service basis (e.g., tuition or course fees).

Certification

Successful completion of training and education from an accredited program and completion of practical work experience will enable candidates to become registered and certified members of the 'occupational health and safety profession'. While certification will focus on the manufacturing specific sector in BC, the opportunity for a broader program that enables mobility of OHS professionals across sectors and geographic boundaries should not be ignored.

A management structure will be required to administer the certification process including: evaluating credentials; adjudicating and awarding certification including the administration of written exams; and, managing membership. Staff and resources will be needed to guide and screen applicants who intend to become OHS professionals.

Responsibilities are expected to include:

- Establishing the core values and ethics for the OHS profession
- Assessing applicants for eligibility for certification as an OHS professional in manufacturing
- Verifying work experience
- Administering/adjudicating certification approvals
- Collaborating with the Standards Board to monitor members' certification on an annual basis
- Addressing decertification in consultation with the Standards Board where required

Marketing and Communications Strategy

Program implementation will require a comprehensive marketing and industry/professional outreach and communication program. This is critical to building awareness; understanding and support for the OHS professional training, education and certification programs; promoting OHS as a profession; and, describing the steps to certification. Communications, outreach to industry, and marketing will be carried out by the organization responsible for certification, but will leverage industry and OHS partners and their networks.

Sustainability/Organizational Structure Options

To deliver the OHS professional competency, accreditation and certification programs, at least two different approaches to sustainability will be considered. Research on similar programs, viability analyses, and the advice of the Advisory Bodies will inform recommendations for sustainability.

One possible approach is to separate the accreditation process from certification. The second approach is to combine the two functions for delivery by one organization. Both approaches will require further study during program design. The two options are briefly reviewed below.

Splitting the functions

This approach would see certification and accreditation being administered by two different groups. Certification would be assigned to an organization—potentially an existing organization (e.g., BCRSP, CSSE)—that already has the capability to deliver services. A separate professional Standards Board (accreditation board) would then oversee the management and application of the competency framework, including the accreditation and monitoring of learning institutions and training providers.

Separating accreditation from certification could provide greater transparency and accountability between the two functions. It could also allow for each function to be more easily integrated with an existing service provider thereby resulting in a faster start-up and lower costs as compared to setting up a new organization.

Combining the two functions

Unifying the accreditation board with the certification process could provide a more seamless approach for OHS candidates. This could enable the program to be more responsive to changes within manufacturing and a more seamless candidate application/examination process. A combined function may also be more easily branded as manufacturing specific, thereby providing a stronger identity and recognition by OHS professionals and employers. However, setting up a new organization to deliver a combined process may be costlier compared to integrating the functions into an existing organization that already has the infrastructure and resources in place.

Additional Considerations in Sustainability for Program Implementation

National Implications

Labour market research identified interest in an OHS professional standard that is broader than any one specific industry and supports effective employment mobility across the country. The potential for a broader regional (e.g., western region) or national scale program will be explored during the program design phase.

The Strategy identifies a number of tactics in program design that will help determine the potential for a broader program. This includes an inventory of core competencies for the manufacturing OHS professional as well as for the general OHS profession. It also includes consultations with other health and safety organizations and national partners to identify the potential for the program to apply to all OHS professionals, and on a regional or national scale.

Role of the Manufacturing Safety Alliance of BC

The Manufacturing Safety Alliance of BC (the Alliance) is the health and safety association for manufacturers and food processors in British Columbia. The Alliance's mandate includes enabling industry to access resources that support the overall goal of reducing workplace injuries and their associated human and financial costs to BC's manufacturing sector. The Alliance is tasked with the overall responsibility to ensure that implementation of the strategies is completed and that an effective sustainable outcome emerges to address the inconsistent OHS standard in the manufacturing sector identified in the labour market study.

The Alliance's mission is well positioned to provide assistance, within their capacity, and to leverage its resources and networks to promote the competency framework and the value of OHS professional certification. The Alliance's role in the implementation of the OHS professional program will be determined in the program design phase and by the Steering Committee in consultation with the Advisory Bodies.

Resource and Financial Requirements

Establishing a new OHS professional program would require new staff and infrastructure, unless the program administration was able to be combined with an existing organization. Even if a current entity was able to support some of the administration and provide adequate office space, the additional responsibilities would likely require new staff to execute the work. While some activities could be provided by volunteers or in-kind contributions (e.g., event support, marketing and promotions), a new entity would typically require office space and equipment; a staff of two or three individuals; support for the professional Standards Board; and, allowance for travel, events, and marketing and communications.

Financial costs for a new or expanded operation would be partially offset by application fees for examination and certification, ongoing annual memberships, special events and professional development.

An initial budget estimate, shown in Figure 4, assumes a new stand-alone program for OHS professionals in the BC manufacturing sector. It does not include the potential for a broader program beyond manufacturing and BC.

Integrating the OHS professional program for manufacturing with an existing entity could achieve some economies of scale with a potential reduction in costs for office space, administrative overhead, some staff support and communications. The opportunity to integrate the OHS professional program with one or more existing organizations will be evaluated as part of program design.

Figure 4 below shows potential costs for a new standalone operation and are modeled after comparable, existing regulating bodies in BC.

Figure 4 Program Operation Cost Estimate – New Entity

Cost Centre	Estimated Annual Budget
Office space	$75,000
Administrative support (loaded cost)	$75,000
Program Manager (loaded cost)	$125,000
Program Assistant (loaded cost)	$90,000
Standards Board operational support	$35,000
Travel and expenses	$25,000
Technology and Web Support	$25,000
Marketing and communications	$45,000
Administration overhead	$50,000
Total Budget Preliminary Estimate	$545,000

Integration with an existing program is estimated to offset costs by 30% - 40%, based on savings gained through potential sharing of resources and other administrative costs.

Selection of the most effective model will be completed as the work within the strategies is completed. The decision process used to determine which model is adapted will be based on recommendations put forward by the advisory bodies in consultation with subject matter experts and involved stakeholders with an approval supported by the Steering Committee.

Projected Revenue Generation

Revenue generation, once the program is operational, will depend on the scope of the program, including the number of sectors participating, and the geographic extent of the program (i.e., BC, regional or national). The financial cost to operate the program is based on a manufacturing sector model in BC. Revenue generation is based on the same scope – the manufacturing sector and BC only.

WorkSafeBC 2017 data for the Manufacturing sector identifies 11,182 employers out of which there are 413 large employers (100+ employees), 1,449 medium employers (20-99 employees) and 9,300 small employers (less than 20 employees)[6]. During the program design phase, an aggressive marketing campaign will be targeted to large and medium size firms, and to independent OHS practitioners who provide services to companies of all sizes. Medium to large employers may already have the infrastructure and capacity—financial and human—to adopt the manufacturing OHS professional certification program.

While small employers out-number medium and large-sized employers, they account for a smaller portion of the total workforce. Getting large and medium sized firms on board early has the potential to affect the largest number of workers and to create momentum within industry.

Early adoption by medium and large employers will establish leadership, credibility and momentum to the program, and it will send a signal to independent OHS contractors about changing requirements to practice as a professional in the manufacturing sector. Based on consultations, smaller firms, who may not have full or part time OHS staff, would most likely outsource their health and safety program needs through independent contractors. These contractors are expected to be motivated by the participation of medium and large employers to apply and become certified as professionals.

Figure 5, on the following page, outlines the projected revenue generation for the program. These estimates are based on the following assumptions:

- The initial estimate is only for OHS professionals in the manufacturing sector and independents who may choose to recognize the opportunity for professional OHS status
- Zero certified members in Year 1. All prospective members will be considered applicants for certification
- Applicants in Year 1 are estimated at 250
- In Year 2, Year 1 applicants will be certified, and another 150 applicants are projected
- Annual membership fees are proposed at $525
- Membership application fees are one-time, non-refundable administrative fees at $450
- Written exam fees to become certified are one time and proposed at $300
- Professional development training starts in year 2 and assumes 50% intake
- Professional development courses are proposed at $250 per course
- Revenue from advertising would include advertising by training and education institutions, from member firms at OHS professional program sponsored events (e.g., booth space) and in publications (e.g., newsletters) and on the website
- OHS professional program sponsored events, seminars, webinars etc. could generate revenue once the program is well underway (by Year 3)
- Other sources of revenue could include: credentials equivalency evaluation/challenge fees, events, donations, sponsorships, and other membership activities

[6] WorkSafeBC. (2018). Industry Safety Information Stats Portal, Manufacturing Sector. Retrieved August 1, 2018, from https://online.worksafebc.com/anonymous/wcb.ISR.web/IndustryStatsPortal.aspx?c=1

Figure 5 Revenue Generation Preliminary Estimate					
Potential Revenue Sources	Year 1	Year 2	Year 3	Year 4	Year 5
Certified members	0	250	400	600	800
Candidates applying	250	150	200	200	200
Annual membership dues	$ -	$131,250	$210,000	$315,000	$420,000
Application fees	$112,500	$67,500	$90,000	$90,000	$90,000
Exam fees	$75,000	$45,000	$60,000	$60,000	$60,000
Training	$ -	$50,000	$150,000	$200,000	$250,000
Advertising	$ -	$5,000	$10,000	$15,000	$20,000
Events (includes sponsorships, donations, etc)	$ -	$ 15,000	$20,000	$25,000	$30,000
Total Operating Revenue Estimate	$187,500	$313,750	$540,000	$705,000	$870,000
Total Operating Budget Estimate (adjusted for 2.5% annual inflation)	$545,000	$558,625	$572,590	$586,905	$601,580
Capital Expenses	$75,000	-	$20,000	-	$30,000
Surplus/Deficit	**$432,500**	**$244,875**	**$52,590**	**$118,095**	**$238,420**

The expense/revenue projection shows that the program would nearly be self-sustainable in Year 4 and deficits recovered by Year 7.Expanding the program beyond manufacturing and beyond BC could result in significant additional revenue. Opportunities for reducing costs or increasing revenues will be explored during the program design phase.

Logic Model and Evaluation Framework

This logic model and evaluation framework provides a visual planning tool to be used in evaluating the goals and objectives outlined in the Strategic Plan, specifically an integrated and relevant manufacturing OHS profession competency, accreditation, certification and communications strategy.

The logic model and evaluation framework mirrors the vision and goals outlined in the Strategy.

VISION	**A manufacturing OHS professional supports the development of a culture of safety and well-being, making the BC industry the safest place to work.**
GOALS	To create a manufacturing industry OHS competency and capability framework that will standardize qualifications, skills, knowledge, abilities and professionalism
	To establish accredited training and education program standards for the OHS professional in manufacturing that are relevant to an evolving industry
	To design an OHS certification process for manufacturing that is a benchmark for OHS excellence around the world and among professionals and practitioners, training institutions and employers
	To ensure that the OHS professional certification program for manufacturing is known, recognized and adopted by industry in BC and across Canada

The results of this project will address the BC manufacturing sector labour market issues identified through research and consultations. Addressing these issues will allow manufacturing firms to mitigate the OHS risks of an ever-evolving sector; help establish more robust and sustainable OHS management systems; reduce the current high turnover rate of OHS professionals in the province; and, ultimately, make manufacturing the safest industry to work in BC.

The tables on the following pages explain the rationale behind the program design and shows how specific program activities lead to desired results. Also contained within the tables are an overview of the methods used to evaluate the outcomes of the project. The outputs, short term and long term outcomes are then expanded upon to identify potential indicators and methods for evaluation. Further exploration and refinement of the indicators and methods is integrated within the Strategic Plan tactics.

This logic model and evaluation framework has been designed with the following information:

- Resources: the high level contributions that must be inputted in order for any activities to occur. This can include time, financial resources, or staff
- Activities: the Strategy program design tactics that will be conducted –*what we do*
- Short-Term Outputs: the products of the activities conducted – *what is the result*
- Short-Term Outcomes: the expected results of the outputs produced – *what is achieved*
- Long-Term Outcomes: the intended effects of the program, post design and implementation—*what is the impact on industry*
- Indicators: specific measures, trends, observations, facts, or statistics that gauge whether the outcome was met—*how we know it worked*
- Methods: the procedure for collecting the supporting evidence of success—*what was done*

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – OHS PROFESSIONAL QUALIFICATIONS AND CORE COMPETENCIES

Resources	Activities	Outputs	Short Term Outcomes	Short Term Indicators	Short Term Evaluation Methods	Long Term Outcomes	Long Term Evaluation Methods
Manufacturing Safety Alliance of BC (MSABC) Project Management Funding support to conduct research and analysis Steering Committee and Advisory Body input on the competencies and capabilities to be an OHS professional Staff and contractors research and analysis of competency and capability requirements, and framework design Subject Matter Experts input on required competencies and capabilities, both general and manufacturing specific Manufacturing Sector OHS Profession Phase 2 LMI, Industry Consultation and Strategy Development and Sustainability Plan reports	Build and maintain advisory body for defining the core competencies and qualifications for the OHS professional in the manufacturing industry Advisory Body Chairs will meet / communicate on a regular basis to keep apprised of ongoing activities and findings	Established Competencies Advisory Body	Subject Matter Expert and industry input and strategic advice ensures the competency framework meets the needs of industry and incorporated learnings from existing best practices Increased assurance, through the Advisory Body Chairs, that the competency framework is consistent with other aspects of Program Design	# and type of stakeholders and industry leaders that have provided input into the Competency Framework % of Advisory Body members indicating that the Competency Framework is consistent with other aspects of the program design	Review of meeting notes & procedural documents Survey of stakeholders/ industry leaders providing input on outcomes Key informant interviews with members of the Advisory Body to understand their experience and perspectives	Increased awareness and support across the manufacturing sector of the OHS profession Competency Framework Increased understanding among OHS professionals about the competencies and capabilities required to be employed in the manufacturing sector Increased (if not full) understanding by institutions and training providers of the Competency Framework required to be accredited Industry and professionals will have career planning, recruitment, certification and professional development standards and tools for OHS in the manufacturing sector Increased understanding and agreement across the manufacturing sector on the definition of an OHS professional Recognized OHS professional standard by industry employers The Competency Framework serves as a benchmark for other health and safety associations and other sectors to emulate Employers understand the Competency Framework, and its value to business	Online survey with OHS professionals to understand their: o Awareness, support and knowledge of the Competency Framework o Awareness, support and knowledge of competencies and capabilities required to be employed in manufacturing sector Online survey with institutions and training providers to measure their knowledge and awareness of the competencies and capabilities required to be accredited Focus groups and key informant interviews with industry and professionals Survey of industry employers
	Research and define an inventory of the health and safety risks that OHS professionals in the manufacturing industry need to be proficient with/ knowledgeable in	Established database of OHS risk areas for the general profession, and those specific to the manufacturing industry.	Defined foundation/knowledge base ensures that the competency framework is relevant to the current and emerging risks in the industry and are relevant to the manufacturing OHS profession	% of stakeholders and industry leaders that are aware and understand the Competency Framework % of stakeholders who agree with the defined framework # and type of OHS professionals that endorse the knowledge/ skill requirements proposed in the framework	Online survey with manufacturing industry to understand how inventory is being used. Focus groups with OHS professionals to understand the applicability/ relevance of the Competency Framework.		
	Research existing, relevant competency and capability frameworks Define the Competency Framework to be used for the manufacturing OHS profession Validate and finalize the Competency Framework through consultations with key informants	Established OHS profession Competency Framework	Existing models and their best practices components are researched and leveraged in the design of the BC manufacturing OHS profession Competency Framework OHS career-seekers, practitioners and industry employers know the essential competencies and qualifications – practical, technical, experience - for an effective OHS professional in manufacturing Education and training institutions have a Competency Framework in which to base their curriculum and program design	# and type of documentations that highlight the standardized professional qualifications % of OHS candidates, practitioners and industry employers who know the essential qualifications for OHS professionals in manufacturing # and type of benchmarks established # and type of other health and safety organizations that have used the framework # and type of other sectors that have used the framework # and type of education and training institutes that have competency framework in use	Online survey with manufacturing industry to understand knowledge, awareness and application of standardized professional qualifications Key informant interviews with key stakeholders		

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – OHS PROFESSIONAL QUALIFICATIONS AND CORE COMPETENCIES							
Resources	**Activities**	**Outputs**	**Short Term Outcomes**	**Short Term Indicators**	**Short Term Evaluation Methods**	**Long Term Outcomes**	**Long Term Evaluation Methods**
	Research options for continuous improvement of Competency Framework Validate and finalize the continuous improvement model	Established continuous improvement model	Increased assurance for employers, practitioners and career-seekers that the framework is current and reflects evolving industry requirements in an ever-changing work environment	% of industry that are following the standards # and type of consultations with industry, relevant associations, experts and key stakeholders.	Online survey with manufacturing industry to understand how model is being used. Key informant interviews with key stakeholders. Interviews/surveys with employees to understand how the OHS requirements are being implemented in their workplace.		
	Research options for governance and sustainability of Competency Framework Validate governance model	Established governance framework for long term sustainability and functions	Enhanced sustainability for the Program Design implementation	Level of Advisory Body and Steering Committee support for program design Commitment to participation on the Advisory Body and Committee	Interviews and annual survey of Advisory Body and Steering Committee members on program design progress Tracked level of turnover on Advisory Bodies and the Committee		

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – OHS PROFESSIONAL TRAINING, EDUCATION AND ACCREDITATION

Resources	Activities	Outputs	Short Term Outcomes	Short Term Indicators	Short Term Evaluation Methods	Long Term Outcomes	Long Term Evaluation Methods
MSABC Project Management Funding support to conduct research and analysis Steering Committee and Advisory Body input on training, education and accreditation program/system design for the OHS professional Staff and contractors research and analysis of training, education and accreditation requirements, and framework design Established OHS profession Competency Framework Manufacturing Sector OHS Profession Phase 2 LMI, Industry Consultation and Strategy Development and Sustainability Plan reports	Build and maintain advisory body for training, education and accreditation program design Advisory Body Chairs will meet/communicate on a regular basis to keep apprised of ongoing activities and findings	Established Accreditation Advisory Body	Subject Matter Expert and industry input and strategic advice ensures the training, education and accreditation program meets the needs of industry and best practices Increased assurance, through the Advisory Body Chairs, that the training, education and accreditation program is consistent with other aspects of program design	# and type of stakeholders and industry leaders that have provided input into the training, education and accreditation program % of Advisory Board, as defined in the terms of reference, indicating that the training, education and accreditation program is consistent with other aspects of the program design	Key informant interviews with members of the advisory board to understand their experience and perspectives Review of meeting notes & procedural documents	Increased awareness and understanding among those seeking a career in OHS of the required competencies and capabilities Training and education gaps for OHS professionals in the manufacturing sector eliminated Increased number of OHS professionals seeking to achieve competencies through a clearly established career path Improved planning and communication between manufacturing industry leaders and post-secondary and training providers Improved alignment of post-secondary and training providers with the competency framework for OHS professionals in manufacturing Standardized training and education program for OHS professionals in BC, thereby eliminating the diverse range and quality of existing training programs Clearly established career path for anyone seeking training and education to become an OHS professional Industry acknowledged and supported (through hiring, funding etc.) requirements for OHS training and education in manufacturing Established and recognized, accredited training and education programs in BC for OHS professionals	Entry and exit survey of those seeking a career Online survey with new hires to understand how they navigated the career pathway. Increase/change in the number of entrants/participation in training and education programs Environmental scan/review of training and education organizations to understand how they are implementing the competencies and frameworks. Focus groups with industry to learn how they are supporting OHS training and education Survey of HR professionals in manufacturing companies Accreditation tracking of training and education programs/ institutions to measure alignment Survey to students on the relevance and quality of the curriculum
	Develop a process for establishing training and education standards utilizing the Competency Framework Map the relationship between generalist and manufacturing OHS professional training and education requirements Develop mechanisms for curriculum approval	Defined standards of education and training for the manufacturing sector OHS professional and their comparison to the generalist, baseline requirements	Linked standards (between the manufacturing-specific vs the generalist professional) enables a 'scalable' training and education model that can be more readily incorporated in to existing programs	# and type of documents that link the standards and demonstrate training and education model % increase in training and education opportunities that are offered	Comparative review of standards documents Environmental scan of training and education opportunities		
	Define program standards to meet the Competencies Framework Pilot and evaluate the program standards Finalize OHS professional training and education program standards	Established program standards for OHS training and education to support certification	Increased clarity for the employers and career-seekers about the pathway to becoming an effective OHS professional in manufacturing Improved direction for employers, practitioners and career-seekers with selecting education, training and professional development opportunities Increased understanding by education and training institutions on the basis for curriculum approval Quality, content and standards for OHS education and training for manufacturing is standardized. Standards established include adaptive and innovative learning requirements, reflecting different industry needs	% of employers and career-seekers who can identified the pathway to becoming an effective OHS professional # of professional development opportunities available # and type of education and training institutions that know the standards and have adopted them into their curriculum	Key informant interviews and/or surveys with employers and career seekers about their knowledge of the pathway Environmental scan of training and education opportunities Online survey with education and training institutes to understand their knowledge and use of standards Enrollment data from education and training institutions		

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – OHS PROFESSIONAL TRAINING, EDUCATION AND ACCREDITATION							
Resources	**Activities**	**Outputs**	**Short Term Outcomes**	**Short Term Indicators**	**Short Term Evaluation Methods**	**Long Term Outcomes**	**Long Term Evaluation Methods**
	Develop performance standards and metrics to evaluate the effectiveness of training programs Develop a system to monitor and evaluate the results of training program Develop a mechanism to solicit feedback from industry and professionals Define the mechanism to evaluate the effectiveness of the program standards	Established continuous improvement model	Assurance that program standards meet the competency requirements for OHS professionals Assurance that the training and education program standards will remain relevant to the evolving needs of the manufacturing sector Process established will ensure consistent quality and standard of certified graduates	# and type of training and education programs that have adopted standards # and type of documents that include the program standards and competency requirements # of certified graduates Qualitative industry assessment of program relevancy	Professional Standards Board random audit Environmental scan of training and education opportunities Graduate rates from training and education institutions Employer and student survey to confirm program relevancy and quality Industry advisory group on program curriculum	Dynamic training and education program standards that are flexible to learning situations, styles, demographics and industry trends Scalability to the other industries and/or other provinces	
	Research and evaluate an accreditation process Develop criteria, quality assurance and application process Form an accreditation body Develop a framework to evaluate the accreditation criteria and model Finalize the accreditation process	Established accreditation system	Increased understanding among education and training institutions about the requirements for accreditation Quality assurance process established to maintain standards, performance and accreditation. Increased confidence of employers, practitioners and career-seekers that accredited programs will provide students with the competencies, skills and qualifications needed to be a successful and effective professional Increased assurance within the manufacturing industry that certified graduates have the right OHS qualifications. Existing, best practices models are leveraged in the design of the accreditation system	% of education and training institutes who understand requirements for accreditation # and type of best practice models that were reviewed and documented # of certified graduates	Focus groups and/or key informant interviews with representatives from education and training institutes about their knowledge of standards, performance and accreditation Survey with employers, practitioners and career-seekers to measure level of knowledge, confidence and assurance in the competencies and accredited programs Graduate rates from training and educational institutions		
	Research options for governance framework for the accreditation of education and training Validate governance model	Established governance for accreditation of education and training programs	Contribution to overall program sustainability and sustainability for the accreditation system				

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – CERTIFICATION: STANDARDIZATION AND OVERSIGHT OF THE OHS PROFESSIONAL

Resources	Activities	Outputs	Short Term Outcomes	Short Term Indicators	Short Term Evaluation Methods	Long Term Outcomes	Long Term Evaluation Methods
MSABC Project Management Funding support to conduct research and analysis Steering Committee and Advisory Body input on certification model for an OHS professional Staff and contractors research and analysis of certification requirements, and framework design SMEs input on required certification and accreditation Established certification and accreditation System and their respective governance/continuous improvement models Manufacturing Sector OHS Profession Phase 2 LMI, Industry Consultation and Strategy Development and Sustainability Plan reports	Build and maintain advisory body to inform model design for standardization and oversight Advisory Body Chairs will meet/communicate on a regular basis to keep apprised of ongoing activities and findings	Established advisory body to oversee design of the certification model	Subject Matter Expert and industry input and strategic advice ensures the certification model meets the needs of industry and best practices Increased assurance, through the Advisory Body Chairs, that standardization and oversight is consistent with other aspects of Program Design	# and type of stakeholders and industry leaders that have provided input into the certification model % of Advisory Board indicating that the certification model is consistent with other aspects of the program design	Key informant interviews with members of the Advisory Body to understand their experience and perspectives Review of meeting notes & procedural documents Measured level of participation by Committee an Advisory Body members	Increased recognition of OHS professional certification as the standard among OHS practitioners, training institutions and employers Increased support across Manufacturing for OHS certification during recruitment process Increased participation by OHS professionals in the certification program Increased manufacturing industry recognition of the business value of a certified OHS professional Established and operating industry certification body that ensures compliance with the competency framework Established and operating Professional Standards Board to ensure quality, continuous improvement and sustainability Increased awareness of prospective OHS candidates -new students entering the profession or as a mid-career transition – about the requirements for professional status Current and relevant OHS professional that will support an evolving manufacturing industry with annual educational and/or skills requirements	Key informant interviews with training and education organizations to understand the certification process Measure the change in the # of certified OHS professionals Key informant interviews with manufacturing industry to understand their perspectives on OHS profession Survey of manufacturing industries to assess recognition and understanding of ROI Annual report/assessment of the certifying body Annual assessment/report of the professional Standards Board Survey of OHS candidates entering and exiting the program
	Research and evaluate possible models for professional certification Incorporate competencies and accreditations frameworks into the design of model Validate the certification model Evaluate the certification model Form certification body	Established certification model	Improved consistency of OHS professionals' qualifications Existing models researched and leveraged in the design of the certification model Process in place to ensure proper review and assessment of OHS candidates External validation process, tied to the Competency Framework, established Increased clarity on OHS certification for manufacturing established in relation to other credentials	% of professionals who have professional qualifications # and type of organizations that use process to review OHS candidates # and type of employers and professionals who understand the OHS certification process # and type of models that are researched to develop certification model Steering Committee and Advisory body endorsement of the certification model Established certification model	Key informant interviews with employers and professionals to gauge their level of awareness and understanding of certification process Survey with employers and professionals to confirm the certification model for implementation		
	Develop program for mid-career transition	Established transition process for current OHS professionals in manufacturing to OHS professional certification	Practical experience, in addition to soft (influencing), business and technical skills, addressed in the competency framework. Pathway for current professionals to become certified established	% increase of professionals who are certified % of entrants from industries outside of manufacturing	Data from certification body		

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – CERTIFICATION: STANDARDIZATION AND OVERSIGHT OF THE OHS PROFESSIONAL							
Resources	**Activities**	**Outputs**	**Short Term Outcomes**	**Short Term Indicators**	**Short Term Evaluation Methods**	**Long Term Outcomes**	**Long Term Evaluation Methods**
	Develop continuous framework model	Established continuous improvement model	Increased assurance for manufacturing sector that oversight and certification validates the competency framework. Annual educational/skills professional development expectations that ensures the OHS professional in manufacturing is equipped with the knowledge, ethics, skills and abilities to support industry	# and type of documents that feature the competency framework # and type of professional development opportunities that include information supporting knowledge, ethics, skills and abilities to support industry % increase in documents and resources with current and accurate information	Review of documents Environmental scan of professional development opportunities		
	Research governance framework Validate governance framework Finalize the model for adoption	Established certification body governance framework	Contribution to overall program sustainability and sustainability for the certification system	# and type of training and education institutions that have adopted standards and accreditation system #, type and % in certified graduates #, type and % of training and education organizations that offer certification programs	Review of documents Environmental scan of training and education opportunities Graduate rates from training and education institutions		

PROGRAM DESIGN LOGIC AND EVALUATIONS MODEL – COMMUNICATIONS AND OUTREACH

Resources	Activities	Outputs	Short Term Outcomes	Short Term Indicators	Short Term Evaluation Methods	Long Term Outcomes	Long Term Evaluation Methods
MSABC Project Management Funding support to conduct research and analysis Staff and contractors research and development of marketing and communication plans, and value for money. Subject Matter Experts input on Return on Investment (ROI) and marketing MSABC resources to support and enhance communications with industry.	Research and develop communication plan Develop marketing program Develop brand	Established marketing and communication strategy for the manufacturing OHS professional program	Tools in place to build buy-in and support across industry Workplace health and safety is incorporated into communications and marketing as an essential business component Champions identified and enabled to build support for OHS professionals in manufacturing	# and types of communication tools in place to build and support industry # and type of strategic propositions developed for burning platform message # and type of champions identified to build support for OHS professionals in manufacturing	• Document review • Key informant interviews to identify champions	Informed support for OHS and the role of the OHS professional among Manufacturing employers and their workforce based not only on safety, but as an investment in their business An understanding of the business value of consistent and certified competencies for OHS professionals in Manufacturing Support and buy-in for an integrated system of training, credentialing and evaluation based on a Manufacturing OHS competency framework Demand for a managed credentialing system for OHS professionals in manufacturing Industry-wide comprehension on the benefits and value of an OHS professional designation	• Focus groups with manufacturing employers to understand how safety has been considered in their workforce – including their support and buy-in. • Focus groups with OHS professionals to understand how their trajectory led them to the role and what communication information they received. • Measured change in number of OHS professionals in manufacturing, and the number of firms with an OHS professional • Industry annual survey
	Create ROI for OHS professionals	Established communication program demonstrating economic/ social value	Value of OHS to the 'bottom line' of industry established – both for small and larger industries	Return on investment process completed – with metrics to inform the bottom line	• Complete ROI exercise • ROI case studies documented		
	Promote the OHS Competency Framework Develop a marketing and outreach plan	Established communications program to build awareness of the competencies framework	Increased awareness and understanding of the moral imperative for OHS among industry employer Increased professionals' awareness and buy-in established	% of industry employers who have increased awareness and knowledge of OHS % increase of organizations that use OHS standards and competency frameworks	• Key informant interviews with industry employers to understand their views on OHS, and professional awareness and buy-in • Survey of manufacturing employers		
	Develop an information/ outreach program Build an HR 'toolkit' Integrate toolkit into online platform Communicate the OHS professional standard to the HR association body, industry and professionals	Established communications plan to build the knowledge of, and capacity for, the Competency Framework	Tools in place to support recruitment and professional development of OHS professionals in manufacturing Campaign established to reach smaller businesses Increased clarity on OHS certification for manufacturing established in relation to other credentials	# and types of tools in place to support recruitment and professional development # of professional development opportunities offered % of new recruits Established communication plan # and type of documents and meetings held to increase clarity of OHS certification	• Online survey with new professionals to understand how they were recruited and what opportunities they received for professional development • Document Review		

Risks and Mitigation Strategies

Implementation of the Strategic Plan faces a number of risks that will need to be mitigated during the program design phase. These are highlighted below.

Potential Risk	Mitigation Strategy
Program funding in its entirety is not available at the start of Phase 4	Program design can proceed in stages and as funding becomes available. While the OHS professional program is a fully integrated one, key components can stand alone (e.g., competency framework). The Alliance will be aggressively marketing and promoting the program to industry and will be seeking industry participation in funding design.
Program design results in an poorly integrated and coordinated strategy going forward	Establishing a clear project management structure with an assigned project direction and accountable project managers will mitigate the potential for a poorly designed program. The Alliance, in coordination with the Steering Committee, will establish clear communication and reporting systems to make sure that each component of the strategy is progressing in line with the evaluation framework established for program design.
Low interest or uptake by the manufacturing sector during program design	Consultations in Phases 2 and 3 have identified industry support in an OHS professional standard. The Alliance will proactively promote the program across the manufacturing sector and will leverage partnerships and provincial/national affiliations to build support and participation. The Alliance will target current well qualified OHS professionals and employers who have a strong corporate commitment to OHS in the workplace for consideration as candidates for 'fast-tracking' to certification to help build champions and support for the program.
Competency framework fails to keep pace with industry changes, thereby jeopardizing the quality of OHS professionals	An industry based professional Standards Board will ensure that the competencies and capabilities remain relevant to industry, and thereby provides a strong foundation for OHS professional learning and experience
Insufficient resources to implement Phase 4	The assignment of the Alliance as project director for Phase 4 should ensure that program design can proceed in a timely manner with sufficient resources. The Alliance has staffing, resources, communication networks and partners to ensure successful implementation.
Lack of interest in an OHS professional standard beyond manufacturing, and beyond BC	The Alliance has already identified interest by other manufacturing safety associations in other provinces and nationally. If this interest does not materialize further, there is a demonstrated need and supports are in place for a 'made in BC manufacturing OHS professional standard'.

Project design may take longer than anticipated for some components of the Strategy	The Alliance will establish a detailed project management plan, with timelines and a reporting structure. The Project Management team along with the Advisory Body Chairs responsible for each component of the strategy, will meet regularly to monitor progress on the work program, and identify and address any risks with potential delays.
Small manufacturing businesses don't embrace or engage in the OHS professional standards program	The Alliance will consult with representatives of small businesses to identify how program design for OHS professionals can effectively address their unique needs. It will be important to recognize that program design may require different models/approaches to different sizes and locations of industries in BC.

Next Steps

Industry consultations through the first three phases of the labour market sector partnership have clearly identified support for an OHS professional standard and a program that enables mobility across sectors and geographic boundaries. The Strategic Plan sets out a well-defined path for developing an OHS professional standard, the accompanying accreditation and certification processes for manufacturing, and the potential for broader application to other sectors and regions of the country. Approval of the Strategic Plan will set the stage for seeking funding for Phase 4 implementation. Funding will be sought from the Sector Labour Market Program, as well as direct contributions from industry.

Development of the Phase 3 Strategic Plan has been accomplished through a successful partnership with industry. It is anticipated that this will continue through Phase 4 and into program implementation. Approval of the Strategic Plan sets the stage for the Alliance to make application for Phase 4 funding, and to continue to work with industry partners to design a successful program for occupational health and safety professionals in manufacturing.

Conclusion

Phase 3 saw the creation of a Strategic Plan, along with a logic model, sustainability and evaluation frameworks, that supports the OHS profession in BC's manufacturing sector with implications for the overall profession in BC and Canada.

Strategy development, validated through consultations with industry and subject matter experts, included establishing a vision to guide implementation and priority actions (goals, strategic objectives and tactics) that will inform the development of effective training tools and relevant career-path information for career seekers and employers alike.

The Alliance and the industry-led Steering Committee look forward to the implementation of this four-year strategic plan which, in the long-term, will address the labour market issues identified through research and consultations. Addressing these issues will allow manufacturing firms to mitigate the OHS risks of an ever-evolving sector; help establish more robust and sustainable OHS management systems; reduce the current high turnover rate of OHS professionals in the province; and, ultimately, make manufacturing the safest industry to work in BC.

Appendix A: Steering Committee Members

Daneen Skilling, National Environmental, Health & Safety Manager, Andrew Peller (Chair)

Paul Barton, Teamsters Union

Scott Bax, Senior Vice President Operations, Pinnacle Renewable Energy Inc.

Lisa Chu, Associate Dean, BCIT School of Health Sciences

James Donaldson, CEO, BC Food Processors Association

Gareth Jones, Canadian Centre for Occupational Health and Safety

Renata King, Director, Business Development, Northern Development Initiative Trust

Lisa McGuire, CEO, Manufacturing Safety Alliance of BC

Sandra Oldfield, CEO, Elysian Projects Inc.

Wayne Tebb, Dean, KPU School of Business

Kevin Thorburn, Supply Chain Manager, Nestle Waters Canada

Chris Back, Director, Industry and Labour Services, WorkSafeBC

Andrew Wynn-Williams, Divisional Vice President, BC, Canadian Manufacturers and Exporters

Ex-officio

Yavhel Velazquez, Program Manager, Ministry of Advanced Education, Skills and Training, Sector Labour Market Partnership Program

Appendix B: Experts Consultations Summary

Date	Name	Position in Company	Company	Reason for meeting
April 4, 2018	David Clarke Pam Pryor	CEO Body of Knowledge Coordinator	Safety Institute of Australia	International (Australia) OHS profession overview - All Strategic Areas
April 13, 2018	Gerry Dragomir	Senior Partner	Pace Accounting	Learnings from the Chartered Accountants profession - All Strategic Areas
April 16, 2018	Vince McNeilly	CEO	McNeilly Consulting	International (UK) OHS profession overview - All Strategic Areas
April 16, 2018	Kevin Myers	President	International Association of Labour Inspection	International (UK) OHS profession overview - All Strategic Areas
April 26, 2018	Hans-Jürgen Bischoff Jürgen Schulin	Secretary General President	International Section of the ISSA on Machine and System Safety	International (Germany) OHS profession overview - All Strategic Areas
May 7, 2018	Sean Mitton	Regional Prevention Manager	WorkSafeBC	Stakeholder opinion (BC) - Qualifications and Core Competencies
May 8, 2018	Nikki Wright Paul Andre	Executive Director Board Chair	Board of Canadian Registered Safety Professionals (BCRSP)	Stakeholder opinion (National)
May 8, 2018	Kathy Tull Perry Ruehlen	National President Executive Director	Canadian Society of Safety Engineering (CSSE)	Stakeholder opinion (National)
May 15, 2018	Susan Kirk	Director of Communications	ITA	Learnings from ITA's Communication and Outreach systems
June 11, 2018	Lynn Brownell	President and CEO	Workplace Safety & Prevention Services	Stakeholder opinion (Ontario)
June 11, 2018	Neal Curry	Executive Director	Made Safe	Stakeholder opinion (Manitoba)
June 11, 2018	Ken Ricketts	Executive Director	Safety Association of Saskatchewan Manufacturers	Stakeholder opinion (Saskatchewan)

Appendix C: Glossary of Terms

This Glossary was developed to create clarity in the use of terms in this strategy.

Term	Definition
Vision	defines a future successful state, usually over a significant timeframe
Goal	planned result an organization strives to achieve, aspirational and not always measurable that is aligned with the project Vision and desired Outcome
Outcome	What an organization wants to achieve, the end result, the measurable 'thing' that will exist
Strategic Plan	For the purposes of this document, refers to the overall strategy—the resulting document from Phase 3 project activities
Strategic Areas	Resulted from Priority Issues identified out of the labour market information report (completed Phase 2 report). Goals are designed to address these Strategic Areas
Strategic Objectives	high level plan to achieve one or more Goals, describes how the ends (goals) will be achieved by the means (resources)
Tactic	specific action or method that is used to achieve a particular strategic objective

Term	Definition
Accreditation	Certification of competence in an areas of expertise and integrity of an educational program, awarded by a duly recognized and respected oversight organization
Capability	Ability to perform the work expected to required standards
Certification	Formal procedure by which an agency assesses and verifies the attributes, characteristics, quality, qualification, and/or status of individuals in accordance with established standards
Competency	Observable abilities, skills, knowledge, motivations or traits needed for successful job performance
Education	Education is related to learning the theory. Traditionally, an education may reinforce knowledge in which that you already have a foundation or create new knowledge, it is your academic studies.
Practitioner	Practitioners are skilled but act primarily at the tactical level
Professional	A profession is a disciplined group of individuals who adhere to ethical standards. A professional is a member of a profession. Professionals are governed by codes of ethics, and profess commitment to competence, integrity and the promotion of the public good within their expert domain. Professionals are accountable to those served.
Qualification	Fitness for a role through fulfillment of necessary conditions including: completion of required schooling or training, acquisition of skills, a degree or diploma. Qualification does not necessarily imply competence.
Skill	Specific talents and/or expertise an individual possesses both hard (technical) and soft (personal)
Standard	Universally or widely accepted and used as an example or model to compare the quality or performance of a role or as a minimum acceptable benchmark
Training	Training provides the skills to do something rather than just know about something. Training can be specific to a vocation or skills-gap. It will focus on the skills to learn or improve a specific ability


manufacturing
Safety Alliance of BC