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Vancouver Island/Coastal Region Manufacturing Labour Market Partnership: Strategy

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VI/Coastal Region Manufacturing Labour Market Partnership: Strategy

Background

Beginning in the fall of 2015, Harbour Digital Media (HDM) collaborated with manufacturers on Vancouver Island and with the support of the Ministry of Jobs, Tourism, and Skills Training established a labour market partnership for manufacturing sector in the Vancouver Island/Coastal region. During the first phase of this partnership, the Vancouver Island Manufacturing sector Advisory Board (VIMAB) was established as a part of the engagement strategy for the sector. The Advisory Board consists of manufacturers from a number of manufacturing sub-sectors including food, metal, fabricated metal, machinery, electrical, plastics, and transportation manufacturing.

The second phase of the LMP for the region took place during the spring of 2016. This phase involved the analysis of existing labour market information, a brief review of some pertinent research literature related to skills and training issues, and the collection of data from employers in the region using an online survey tool and through a series of interviews with key manufacturing sector executives and managers.

A database of 169 manufacturing companies (with 10 or more employees) was developed to undertake the online survey research. A total of 64 responses were received representing a completion rate of 40.25%. One hour interviews with 16 key company executives and senior managers were conducted between April 25 and June 7, 2016. The companies involved in these interviews represented a cross-section of the manufacturing sector in the region.

Priority Labour Market Issues¹

The labour market research phase identified four labour market areas that manufacturing companies in the region believe should be addressed in order for the sector to grow and increase its contribution to both the regional and provincial economies. The areas identified are described in the following sections.

1. Skill Shortages

The region's manufacturers identified a number of positions with skills that are difficult to fill (see Appendix 1 and the *Final Labour Market Information Research Report* for details). Among the positions most often identified were machine operators (CNC and PLC), qualified tradespersons (metal fabrication, machinists, heavy equipment operators), and engineers with various specializations to name a few. Manufacturers in the region are also challenged to find individuals with LEAN training or backgrounds and other specialized skills related to electronics and a range of positions requiring soft skills (i.e. communication, collaboration, teamwork, and cross-cultural negotiation).

¹ Based on the findings of the labour market research conducted during Phase 2 and reported in the *Final Labour Market Information Research Report* (submitted to the Ministry of Jobs, Tourism, and Skills Training on August 22, 2016).

There was also a general concern expressed by companies that there are few qualified candidates in the region with sufficient technical experience and education (e.g. electrical and mechanical engineering and the operation of CNC and PLC equipment as noted above) to effectively operate within local manufacturing environments.

2. Quality and Availability of Training

Manufacturers responding to the survey and providing comments through the interview process are generally dissatisfied with the quality and availability of training in the region and more broadly in the province. Manufacturers question the quality of graduates of BC's educational institutions and their readiness to work on the job in a manufacturing environment. As a result employers find themselves having to invest a great deal of time and money for internal training which has an impact on productivity and, in some cases, on profitability. Manufacturers cite a lack of collaboration on the part of BC's educational institutions as a part of the problem and are concerned that institutions are not working with industry to understand their needs and customize programs to address these needs.

It is important to note that in this second phase of the labour market partnership sector partners did not raise these issues with representatives from post-secondary institutions directly. Given the importance of this issue to both the region's manufacturers and post-secondary institutions, efforts to achieve greater communication and collaboration between industry and the post-secondary education system was initiated during the strategy development phase.

While the data collected as a part of the labour market research phase suggests that VI/Coastal region manufacturers are not entirely satisfied with post-secondary programs in the region, companies acknowledge the importance of defining their needs in ways which enable post-secondary institutions to respond.

Consequently, regional manufacturers are very interested in working with BC institutions and involving them in the design of offerings that address specific high priority needs. Companies recognize the importance of speaking with a single voice so that post-secondary institutions are not trying to respond to individual company needs. It also needs to be recognized that it has been difficult for institutions to adapt their programs to meet the needs of individual companies since typically the volume that is necessary to justify the development of customized training solutions has not been present.

3. The Changing Nature of the Workforce

Manufacturing companies in the region are feeling the impacts of working with a mix of generations from 20 year olds to those beyond 65 and this presents significant operational and training challenges. The ability of companies to adapt to the shifting expectations of a diverse workforce while at the same time maintaining a culture that values high levels of performance and quality is also a challenge. Attracting and retaining workers was also mentioned as a significant issue that is impacting VI/Coastal manufacturers.

4. Industry Collaboration

To overcome the barriers that were identified through research conducted as a part of this manufacturing sector labour market partnership project and to help the sector in the region grow and become more productive, it is important for manufacturers, the region's post-secondary institutions, and government to collaborate to address the important skills gaps that have been identified. Collaboration needs to look different than it has in the past. Industry must be seen as an equal partner with institutions. Government has (through initiatives such as the Canada-BC Job Grant Program) played an important role in providing support and creating training programs that will address high priority skills issues identified by industry. These efforts need to continue and expand.

Overview of Strategy Development Processes and Consultations

Goals, objectives, strategies and tactics (activities related to the strategies) were developed through a series of meetings and consultations with the region's manufacturers.

Two meetings were held with members of the Vancouver Island Manufacturing Advisory Board (VIMAB) on September 7 and 14, 2016. During these meetings, board members were asked to give priority ratings to the issues identified through the labour market research conducted as a part of this project. These issues are described in the previous section of this report. After establishing the priority issues, board members were engaged in a priority setting process that involved each member rating the impact of addressing a particular issue and the importance or desirability of addressing the issue. This approach enabled the group to arrive at consensus concerning the high priority issues.

Once consensus was reached, the board members turned their attention to developing a set of strategies for each of the high priority issues. As a part of this process a number of tactics for each strategy were also developed.

In order to obtain a broader consensus concerning strategies and tactics to address the labour market issues identified, VIMAB, through Harbour Digital Media (HDM) reached out to the population of VI/Coastal manufacturers that were part of the labour market survey². Manufacturers in the database were sent a synopsis of the goals, objectives, strategies and tactics developed and were asked to provide feedback (either through an email response or via telephone) and suggest any additional strategies and tactics that should be incorporated into the strategic plan. Those not responding to initial emails were contacted again by both email and telephone to secure their feedback. Feedback (both in person and over the phone) was received from representatives from 24 companies (see Table 1 below). The feedback and additional suggestions obtained through this process were then incorporated into a final version of the strategic plan. Feedback obtained also served to further validate the findings outlined in the labour market information research paper.

A third meeting of VIMAB was held on November 9, 2016 to discuss the strategy paper and receive input from members of the board. In addition, a number of meetings with individual VIMAB members took

² Approximately 170 manufacturing companies were contacted during the labour market information phase and asked to complete the survey.

place during January 2017 to review both the revised strategy paper and the sustainability plan and evaluation framework required as a part of the LMP project.

In addition, to manufacturing industry input and feedback, HDM also engaged other stakeholders in discussions concerning the proposed strategic directions. These discussions included meetings with officials from the Ministry of Advanced Education, regional economic development officers, executives from chambers of commerce in the region, and industry associations. HDM also met with representatives from island post-secondary institutions (Camosun, Vancouver Island University, and the University of Victoria), and one of the region's school districts (Saanich - School District 63). Additional post-secondary institutions (including North Island College) and private training providers will be involved along with regional manufacturers as a part of partnership implementation activities associated with the strategies outlined in this plan.

HDM presented a synopsis of the report findings at the October 26th Vancouver Island Economic Alliance (VIEA) conference. The 2016 VIEA conference was the organization's most successful conference and best attended. HDM presented to an Island Manufacturing forum that included approximately 45 attendees, including representatives from industry, educational institutions and private sector solution providers. There was extensive follow up and additional discussion specific to this Labour Market Partnership project that will continue into the first quarter of 2017.

Input and feedback from the following individuals has been incorporated into the strategic directions outlined in this paper. In addition, the entire database of companies developed for the region (see Appendix 2) has been invited to provide feedback.

Table 1: Individuals and Companies Providing Feedback to the Strategic Directions

| Name | Company | Contact Information |
|---|--|--|
| Colin Dobell - CEO | Inuktun - Nanaimo | colin@inuktun.com |
| Mark Brajer - COO | Epicure - Victoria | Mark.Brajer@epicure.com |
| Robin Ambrose - HR Director | Viking Air - Victoria | Robin.Ambrose@vikingair.com |
| Chris Larsen - HR & Special Projects Manager | VMAC - Nanaimo | chris_larsen@vmacair.com |
| Stuart Coker - Director of Operational Excellence | VMAC - Nanaimo | stuart_coker@vmacair.com |
| Lynn Brown - HR Business Partner | Schneider Electric - Victoria | Lynn.Brown@schneider-electric.com |
| Doug Pauze - General Manager | Coastland Wood Industries - Nanaimo | dpauze@coastlandwood.com |
| Chuck Richardson - HR Consultant | Pacific Energy Fireplace Products - Duncan | cwrichardson@shaw.ca |
| Mike Smothers - Operations Manager | Nicholson Manufacturing - Victoria | smothersmd@nmbc.com |
| Scott McKay - General Manager | Pro Mac Manufacturing - Duncan | scottmckay@promac.bc.ca |
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| Art Aylesworth - Owner | Peetz Outdoors - Victoria | aaylesworth@ospreymanagement.ca |
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| Tim Walzack - ED - Camosun College Applied Research | Camosun College - Victoria | TWalzak@camosun.bc.ca |
| Lizanne Chicanot - Principal | Parklands Secondary School - Victoria | lchicanot@sd63.bc.ca |
| Colleen McNamee - Career Councillor | Parklands Secondary School - Victoria | cmcnamee@sd63.bc.ca |

| Name | Company | Contact Information |
|--|---------------------------------------|--|
| Susan Allen - Manager, Professional Development & Training | Vancouver Island University - Nanaimo | Susan.Allen@viu.ca |
| Paul Mottershead - Associate Dean, Trades & Applied Technology | Vancouver Island University - Nanaimo | Paul.Mottershead@viu.ca |
| Glynnis Steen - Dean, Faculty of Trades & Applied Technology | Vancouver Island University - Nanaimo | Glynis.Steen@viu.ca |
| Saul Klein - Dean, Peter B. Gustavson School of Business | University of Victoria | sklein@uvic.ca |
| Rebecca Grant - Professor, Peter B. Gustavson School of Business | University of Victoria | rgrant@uvic.ca |
| Tim Ewanchuk, Education Officer | BC Ministry of Advanced Education | Tim.Ewanchuk@gov.bc.ca |
| Vincent Portal, Director, Skills Training | BC Ministry of Advanced Education | vincent.portal@gov.bc.ca |

Addressing Regional Manufacturers' Labour Market Priorities

Manufacturers in the region are interested in addressing the issues identified and working together and with government, post-secondary institutions, private training organizations, the Industry Training Authority (ITA), the K-12 system, and labour to arrive at solutions that will benefit the sector and region as whole.

Through the processes described above, the region's manufacturers have developed a set of long term goals to address labour market issues identified during earlier phases of this labour market partnership project. The long term goals are:

Long Term Goals

1. To establish on-going communication and information sharing mechanisms and processes that support industry labour market priorities and needs.
2. To reduce or eliminate the skills gaps identified by regional manufacturers.
3. To improve access to quality training and development opportunities for manufacturing companies in the region.
4. To address workforce development issues related to an aging workforce, recruitment, retention, and succession planning.
5. To promote manufacturing as a career choice for youth and make the general public aware the nature of work and employment options available through regional manufacturers.

Strategies to Address Labour Market Priorities

The strategies developed by manufacturers through the processes outlined above fall into three categories. These are:

1. Manufacturing Industry Collaboration
2. Improving the Availability and Quality of Training
3. Promoting Recruitment and Retention in the Manufacturing Industry

Strategic Priority Area 1: Manufacturing Industry Collaboration

Strategies in this priority area involve establishing mechanisms for collaboration among the region's manufacturers that can be used to address the sector's priorities.

1. Establish a Collaborative Learning Network for Regional Manufacturers

Regional manufacturers have expressed the desire for greater collaboration and cooperation among companies to address common problems including skills shortages. Manufacturers believe that it is important to build on the work that has begun through the Vancouver Island Manufacturers Advisory Board (VIMAB) and to further expand its efforts by creating a collaborative learning network for regional manufacturers. This collaborative network or consortium would also invite other stakeholders (i.e. representatives from the post-secondary and training provider, and K-12 communities, labour and the Industry Training Authority) to join as partners.

The proposed collaborative learning network would serve as:

- A vehicle for cross-industry collaboration and communication, training, implementation of industry standards, and the promotion of manufacturing as a career choice;
- A vehicle to present 'one voice' concerning regional training and industry development issues to government, post-secondary institutions, and private training providers;
- A regional hub for sourcing and providing training-related expertise for regional companies; and
- A clearinghouse and common access point for programs and training based on identified industry needs.
- A vehicle for sharing success stories and an incubator for new ideas that can be shared across the region and more broadly in the province.

The collaborative learning network should provide venues for manufacturers to focus on current labour market issues facing the sector. At the same time, it needs to be future focused. Manufacturers see the importance of looking at what the sector should look like in the near future and the factors (e.g. demographics, technological change) that will influence the labour market for their companies going forward. Establishing a dialogue which helps companies to create a future orientation will be critical to the long term growth and sustainability of manufacturing in the region.

2. Develop a Web-based Communications Network for Regional Manufacturers

The proposed communications network is intended to facilitate regular communication and dialogue between and among leaders in manufacturing companies on training, development and labour market issues that impact their workforce and company productivity. The ability to communicate regularly will be enhanced with the introduction of a unique manufacturing industry digital messaging application to facilitate timely dialogue and data gathering.

3. Build the Network through Face-to-Face Dialogue

Regular face-to-face meetings and interactions are also required to maintain the momentum that has been established through the work completed during the first two phases of this LMP. These meetings

and interactions will take a number of forms including future meetings of VIMAB, local and regional forums to present and discuss specific training and development issues, and larger events such as conferences which bring together manufacturers from across the region to present their training issues and strategies and allow them to network with other manufacturers and training providers.

Strategic Priority Area 2: Improving the Availability and Quality of Training

Strategies in this priority area involve efforts to improve the availability and quality of training related to manufacturing industry priorities. The strategies identified in this priority area through discussions with VI/Coastal manufacturers are:

1. Establish Mechanisms for Collaboration with Post-secondary Institutions and Private Training Providers

Collectively, regional manufacturers are interested in developing relationships with local post-secondary institutions and private training providers to address what they see as unmet demands for industry specific training and development programs. Regional manufacturers are also interested in engaging training providers in a productive dialogue concerning their interests and needs. Mechanisms that are being considered include:

- **Establishing a VI/Coastal region manufacturing taskforce** with a focus on addressing identified training and development needs and skills gaps. Membership would include manufacturers, regional post-secondary institutions, private training providers, and government representatives. Detailed outcomes for this taskforce include the development of an action plan which will link identified training needs and skills gaps to specific training provider offerings and options. Additional details concerning outcomes will be defined as a part of implementation activities in the next phase of this LMP.
- **Extending the web-based communications network** to include training partners would help to create opportunities for manufacturers and training providers to engage in regular and ongoing dialogue and communication. This type of mechanism, while not sufficient on its own, is considered essential for ensuring that manufacturers are communicating their training needs to providers and that providers are able to respond in a timely manner.

2. Support the Development of Formal Training Opportunities in the Region

The dialogue with training providers should also include the on-going development of industry-specific training programs. To do this, VIMAB will engage government, regional BC post-secondary institutions (and, where appropriate the K-12 sector), and private training providers. The focus of this engagement will be on:

- Improving the availability of industry-specific training locally. Two areas of initial interest are lean manufacturing and supply chain management. Although priorities will likely change (the research identified a number of difficult to fill positions), at the present time there is a

significant need for more and better trained staff who understand and can implement the principles of lean manufacturing. There is also a need for staff that is able to manage all aspects of the supply chain from procurement through relationship management.

3. Conduct Regular Training Needs Assessments

Although the labour market information phase focused on gathering labour market and skills gaps information it did not involve a formal training needs assessment and analysis. Such an analysis at the company level would be used to determine how the identified training and development priorities for the region align with local training options. This information, in turn, would be available to the regional network and would be part of the information services offered through the network.

4. Build a Database of Regional Training Expertise

Development of this database would form the basis for a clearinghouse of training information and a common access point for programs and training based on regional needs. This clearinghouse would be part of the services provided through the manufacturers' collaborative learning network outlined earlier and would include opportunities for both manufacturers and training providers to add and edit their information in order to ensure currency.

Strategic Priority Area 3: Promoting Recruitment and Retention within the Manufacturing Industry

In order for the manufacturing sector in the region to secure the skilled workforce it requires to grow and increase its net value to the provincial economy, it is important that the industry be supported and promoted³. This is seen as requiring a collaborative effort between industry, government and education and training institutions.

1. Establish Mechanisms for the Development of the Manufacturing Industry Workforce

Just as it is important to establish mechanisms for manufacturers to communicate their skills needs and work collaboratively with training providers to address them, it is also important for manufacturers to have ways to address other workforce development issues such as (but not limited to) the challenges associated with an aging workforce, recruitment, retention, and succession planning. It will also be important to build on the collaborative mechanisms and networks outlined above. The VI/Coastal region manufacturing taskforce (or a sub-group associated with the taskforce) should be created to focus on the key workforce development issues identified by the region's manufacturers. For example, areas that the taskforce could focus on are the development of:

- Initiatives to retain workers who are trained in the region to work within the region;
- Incentive programs to retain locally trained workers; and
- Strategies to address an aging workforce, recruitment, and succession planning.

³ Promotion efforts are targeted at potential employees; current post-secondary students, secondary students, and the general public

2. Promote Manufacturing as a Career Option

Regional manufacturers are interested in working in partnership with government to promote VI/Coastal manufacturers and the career options that the industry has to offer. This would help to increase the profile of the industry and make it more "visible" to prospective employees and the general public. Manufacturers are also interested in working with government to establish opportunities for secondary students to participate in pre-apprenticeship and apprenticeship training related to jobs in the sector. Specific actions that should be taken in relation to these interests are:

- **Develop a promotional campaign** in partnership with government to promote the VI/Coastal manufacturing industry as a career option for prospective employees and to inform the public of the industry's contribution to the economy;
- **Establish a mechanism for on-going communication between manufacturers and the K-12 sector** (i.e. school boards and secondary schools) in a manner similar to the collaborative networks discussed earlier in this strategic plan. The dialogue created would help to establish strategies for the communication of industry career options and to create opportunities for secondary students to engage in work experience in the manufacturing sector as a part of their secondary education program;
- **Determine areas of alignment between the Secondary School Apprenticeship program and identified manufacturing skills gaps.** This alignment could help to pinpoint where to target the promotion of manufacturing careers to secondary school students. Promotion activities would be done in partnership with the Ministry of Education, secondary schools and school districts in the region, and the ITA;
- Where appropriate, **establish new secondary school pre-apprenticeship/apprenticeship training options** that align with jobs in the manufacturing sector; and
- **Review the new BC K-12 curriculum in an effort to identify soft skills** that are included and those that align with the interests and needs of manufacturers. This is a necessary step in identifying the areas that can be highlighted for K-12 students, their parent, and educators prior to creating a promotional communications program.

Summary of Proposed Strategies and Actions (Tactics)

The following table provides a summary of the strategies and actions that will be used to achieve the strategic directions outlined above.

Table 2: Summary of Proposed Strategies and Actions

| | Strategic Priority Areas | | |
|---------------------------------|--|--|--|
| | 1. Manufacturing Industry Collaboration | 2. Improving the Availability and Quality of Training | 3. Promoting Recruitment and Retention within the Manufacturing Industry |
| Strategies & Actions | 1. Establish a collaborative learning network for regional manufacturers to provide: <ul style="list-style-type: none"> • Vehicle for cross-industry collaboration • 'one voice' for industry training and development issues • Regional hub for expertise • Clearinghouse and access point for training | 1. Establish mechanisms for collaboration with post-secondary institutions and private training providers <ul style="list-style-type: none"> • Establish a VI/Coastal region manufacturing taskforce • Extend the web-based communications network | 1. Establish mechanisms for the development of the manufacturing industry workforce |
| | 2. Develop a web-based communications network for regional manufacturers | 2. Support the development of formal training opportunities in the region | 2. Promote manufacturing as a career option <ul style="list-style-type: none"> • Develop a promotional campaign • Establish a mechanism for dialogue between manufacturers and K-12 • Determine alignment between secondary school apprenticeship program and skills gaps • Establish new secondary apprenticeship training options • Review the new BC curriculum to indentify soft skills aligned to manufacturers' skills gaps |
| | 3. Build the network through face to face dialogue | 3. Conduct regular training needs assessments | |
| | | 4. Build a database of regional training expertise | |

Strategic Objectives

In addition to the goals and strategies, manufacturers have developed a set of short and mid-to-long-term objectives which have been used to frame a pilot project that will be completed during the proposed implementation phase of this labour market partnership project.

Short-term Objectives

1. Develop and launch a trial collaborative learning network for regional manufacturers.
2. Develop and launch a trial web-based communications network for regional manufacturers (as a part of the collaborative learning network).
3. Conduct a conference which brings regional manufacturers together to showcase company training, development and HR solutions related to identified labour market issues for the sector.
4. Establish and implement a VI/Coastal region joint taskforce with post-secondary institutions and private training providers.
5. Organize and conduct a regional forum with a focus on recruitment and retention of workers in the manufacturing sector.
6. Develop and implement a campaign to promote manufacturing careers.
7. Build an online clearinghouse/database of regional training expertise, programs, and learning content that aligns with industry skills gaps and needs.
8. Implement a trial of the databases for use by regional manufacturers.

Mid-Long Term Objectives

1. Implement a collaborative learning network for regional manufacturers based on feedback from a pilot trial of the network.
2. Implement a web-based communications network for regional manufacturers based on feedback from a pilot trial of the communications network.
3. Establish and implement a taskforce that addresses workforce development issues identified by regional manufacturers in areas such as: strategies to deal with an aging workforce, recruitment, retention, and succession planning.
4. Organize and conduct regional forums to engage manufacturers and the local K-12 community in a dialogue concerning manufacturing career options for secondary students.
5. Conduct an annual training needs assessment of regional manufacturers.
6. Implement a revised version of the regional training database based on feedback from the pilot trial.
7. Implement an online clearinghouse of training expertise, programs, and learning content.
8. Conduct a review of K-12 curriculum and pre-apprenticeship programs to determine alignment to identified regional manufacturing industry skills gaps (including soft skills).
9. Make recommendations related to the secondary school pre-apprenticeship/apprenticeship training and work experience programs that help to align these programs with industry realities.

The following table outlines how the goals, objectives, and strategies relate to one another.

Table 3: Relationship of Strategies to Goals and Objectives

| | Strategy 1: Manufacturing Industry Collaboration | Strategy 2: Improving the Availability and Quality of Training | Strategy 3: Promoting Recruitment and Retention |
|---|--|--|--|
| | Long Term Goal: 1. Establish Ongoing Communication and Information Sharing Mechanisms | Long Term Goals: 2. Reduce or eliminate skills gaps 3. Improve access to quality training 4. Address workforce development issues | Long Term Goal: 5. Promote manufacturing as a career choice |
| Short-term Objectives | | | |
| 1. Develop and launch a trial collaborative learning network | X | | |
| 2. Develop and launch a trial web-based communications network | X | | |
| 3. Conduct a conference to showcase company training, development and HR solutions | X | | |
| 4. Establish joint taskforce with post-sec institutions and private training providers | | X | |
| 5. Conduct regional forums re: recruitment and retention | | X | |
| 6. Implement a campaign to promote manufacturing careers | | | X |
| 7. Build an online clearinghouse/database of training expertise/programs to address skills gaps | | X | |
| 8. Implement a trial of the database with regional manufacturers | | X | |
| Mid-Long term Objectives | | | |
| 1. Implement the collaborative learning network | X | | |
| 2. Implement the web-based communications network | X | | |
| 3. Establish and implement regional taskforces | | X | |
| 4. Organize and conduct regional forums | | | X |
| 5. Conduct an annual training needs assessment | | X | |
| 6. Implement a revised version of the regional training database | | X | |
| 7. Implement an online clearinghouse of training expertise, programs, and learning content | | X | |
| 8. Conduct a review of K-12 curriculum and pre-apprenticeship programs | | | X |
| 9. Make recommendations related to the secondary school pre-apprenticeship/apprenticeship training and work experience programs | | | X |

Moving Forward: Implementing the Strategic Directions through a Pilot Project

This section of the paper outlines an approach which will turn the strategies, goals and objectives developed and endorsed by the Vancouver Island Manufacturers Advisory Board (VIMAB) and verified more broadly by the sector and other potential partners in the region into a pilot project which can be implemented during 2017-18. This pilot project will form the basis for a long-term initiative that will be used by the sector to address the labour market issues it faces. A sustainability plan for the longer term initiative and an evaluation framework that will be used by a third party (selected by VIMAB) to evaluate the impact of the pilot project have also been developed to support this initiative.

Pilot Project Objectives

The proposed pilot project arising from the strategic directions developed by the Vancouver Island Manufacturing Advisory Board (VIMAB) will focus on the short-term objectives outlined above. To assist the reader these are:

1. Develop and launch a trial collaborative learning network for regional manufacturers.
2. Develop and launch a trial web-based communications network for regional manufacturers (as a part of the collaborative learning network).
3. Conduct a conference which brings regional manufacturers together to showcase company training, development and HR solutions related to identified labour market issues for the sector.
4. Establish and implement a VI/Coastal region joint taskforce with post-secondary institutions and private training providers.
5. Organize and conduct a regional forum with a focus on recruitment and retention of workers in the manufacturing sector.
6. Develop and implement a campaign to promote manufacturing careers.
7. Build an online clearinghouse/database of regional training expertise, programs, and learning content that aligns with industry skills gaps and needs.
8. Implement a trial of the databases for use by regional manufacturers.

Through these objectives, regional manufacturers will expand its partnership to include stakeholders from the post-secondary and K-12 communities and will invite representation from labour and the ITA.

Pilot Project Deliverables

Deliverables for the pilot project are:

1. ***Development and implementation of a web-based collaborative learning network.*** This online network will include an online learning and meeting environment and a suite of communication tools. The pilot project will be used to develop the environment (using existing, commercially available software and tools) and test its functionality with regional manufacturers. The pilot project will also involve undertaking the initial development of the following information services.

- a. An online training expertise database. This database will be populated with course and program information from local training institutions and providers. The database will also be organized according to identified skills gaps and training needs.
 - b. A clearinghouse of information related to labour market and training topics of particular interest to regional manufacturers will also be developed and included as a feature of the learning network environment.
2. **Conduct collaboration and network events.** The pilot project will support events that allow regional manufacturers to meet and network with one another on topics related to skills gaps and training. Three events are planned as a part of the pilot implementation. These are:
 - a. A one-day conference-style event with keynote and other speakers and presentations. This event will also provide regional manufacturers the opportunity to showcase their work in areas such as lean manufacturing and how they are addressing skill shortages through recruitment and retention strategies. It is anticipated that this event will attract upwards of 100 participants (both in-person and virtually).
 - b. Two one-day regional forums focused on labour market and workforce related topics determined by manufacturers and based on the findings of the LMI research undertaken by regional manufacturers as a part of this partnership. This events will be targeted at a maximum audience of 20-25 individuals (in-person and virtually) and will act as a follow-up to the conference. Participants will be provided with the opportunity to consider a specific set of issues in depth.
3. **Establish regional training taskforces.** The pilot project will include the initiation of training taskforces that bring together manufacturers with private and public training providers and representatives from the K-12 system. Meetings of two taskforces are planned for the pilot project.
 - a. **Taskforce #1: Regional Training Expertise and Skills Gaps.** This taskforce will bring together regional training providers and manufacturers to work on the identification of training expertise that aligns with manufacturers training needs and skills gaps.
 - b. **Taskforce #2: Promoting Manufacturing in the K-12 System.** This taskforce will bring manufacturers together with regional K-12 career specialists to determine how to best promote manufacturing as a career alternative for secondary students. In the future the mandate of this taskforce could be expanded to include a review of K-12 programs and curricula for alignment with manufacturers' skills issues as determined through the Phase 2 labour market research for this LMP.
4. **Plan, conduct and deliver a manufacturing promotional campaign.** The promotional campaign will focus on creating awareness of career options within the manufacturing sector in the region and will showcase individual companies, the work they do, and the

types of careers that they offer. The campaign will be targeted at the general public but also at students in secondary schools and those already working toward a post-secondary degree, certificate or trades ticket. The online communications network and social media platforms will be used as a part of the delivery of the promotional campaign.

Pilot Project Milestones

It is anticipated that implementation of the pilot project will take place over an 13 month period from March 1, 2017 through March 31, 2018. An early 2017 start is important in order to do the necessary planning and preparation for the conference event which is planned for mid to late-April, 2017. The following table outlines the key milestones and timelines for the pilot project deliverables.

Table 4: Pilot Project Milestones

| Deliverables | Milestones | Target Completion |
|--|---|--|
| 1. <i>Development and implementation of a web-based collaborative learning network.</i> | Network design completed | August 31, 2017 |
| | Collaborative learning network launched (soft launch) | September 1, 2017 |
| | Communications tools evaluated | June 30, 2017 |
| | Communications tools incorporated into collaborative learning network | August 15, 2017 |
| | Field trials of the network | October 31, 2017 |
| | Full launch of the network | November 1, 2017 |
| 2. <i>Conduct collaboration and network events (forums)</i> | Conference planning | March 1 – August 15, 2017 |
| | Conduct conference | During week of September 25 – 29, 2017 |
| | Plan regional forums | March 1 – April 30, 2017 |
| | Conduct regional forums | June 30, 2018 |
| 3. <i>Establish regional training taskforces.</i> | Taskforce #1 established and meets | October 15, 2017 |
| | Taskforce #2 established and meets | February 15, 2018 |
| 4. <i>Plan, conduct and deliver a manufacturing promotional campaign</i> | Planning completed | November 30, 2017 |
| | Campaign launched | January 15, 2018 |
| | Campaign completed | March 15, 2018 |

A progress report will be developed for each deliverable. Upon conclusion a final summary report will be produced which will form part of the evidence considered by an independent third party evaluator.

Appendix 1: Difficult to Fill Positions

| Skill Categories | Difficult to Fill Positions | NOC Categories |
|--|--|--|
| Journeypersons in the Trades | <ul style="list-style-type: none"> • Journeyperson metal fabricators • Carpenters • Millwright • Electricians • Steel Fabricators • Toolmakers • Upholsterers | <ul style="list-style-type: none"> • 7233 • 7271 • 7311 • 7242 • 7235 • 7232 • 6345 |
| Senior Managers | <ul style="list-style-type: none"> • Experienced Plant Supervisors • Senior managers | <ul style="list-style-type: none"> • 9212 • 0911 |
| Production Supervisors | <ul style="list-style-type: none"> • Production Managers | <ul style="list-style-type: none"> • 0911 |
| Technicians | <ul style="list-style-type: none"> • Administrative Technical Support • Sewing machine repair and seamstress • CCTV Installation technicians • Sign manufacturer • Shop manufacturer | <ul style="list-style-type: none"> • 1211 • 7445 • 7246 • 5233 • 7315 |
| Engineers | <ul style="list-style-type: none"> • Qualified Refrigeration Engineers and Refrigeration Mechanics • Electrical engineers • Quality Engineers • Aerospace avionics design engineers • Embedded software (firmware) developers (software engineers) • Power Engineer Supervisors/Managers | <ul style="list-style-type: none"> • 2132 • 2133 • 0211 • 2146 • 2174 • 9241 |
| Supply Chain Workers | <ul style="list-style-type: none"> • Supply chain specialists • Supply Chain managers | <ul style="list-style-type: none"> • 1122 • 1215 |
| Machine Operators and Assemblers | <ul style="list-style-type: none"> • Machinists and mechanical technologists • Machine Operators • Fabricators • AutoCAD operators | <ul style="list-style-type: none"> • 7231 • 9416 • 7201 |
| Sales and Customer Service Representatives | <ul style="list-style-type: none"> • Sales people • Customer Service Representatives | <ul style="list-style-type: none"> • 0601 |
| Labourers | <ul style="list-style-type: none"> • Log Scalers | <ul style="list-style-type: none"> • 2223 |
| Logistics Specialists | <ul style="list-style-type: none"> • Logistics specialists | <ul style="list-style-type: none"> • 0911 |
| Administration | <ul style="list-style-type: none"> • Administrative support • Quality Assurance/Food Safety Manager • Project managers | <ul style="list-style-type: none"> • 1221 • 2141 • 1221 |

Appendix 2: VI/Coastal Region Manufacturing Company Database

| Company | Municipality/City | Web Address |
|---|---------------------------------------|---|
| A&M Marine | Nanaimo | http://www.ammarine.ca/ |
| AAA Rebar Only Ltd | Central Saanich | http://www.aaarebar.com/home.html |
| Abeego Designs | Victoria | http://abeego.com/ |
| Accent Refrigeration | Victoria | http://www.accent-refrigeration.com/ |
| Access Panel Solutions | Victoria | http://www.accesspanelsolutions.com/ |
| Acoustics West Manufacturing | Saanich | http://www.acousti-trac.com/index.php |
| AGO Environmental | Esquimalt | http://www.agoenvironmental.com/home |
| Alliance Engineering Works | Victoria | http://www.alliance-works.com/ |
| AML Oceanographic | Sidney | http://www.amloceanographic.com/ |
| ASL Environmental | Victoria | http://www.aslenv.com/ |
| Associated Sheet Metal | Central Saanich | http://associatedsheetmetal.com/ |
| AXYS Technologies | Victoria | http://axystechnologies.com/ |
| B&F Manufacturing / Quadra Jet | Nanaimo | http://quadrajt.ca/ |
| Babcock Canada | Victoria | https://www.babcockinternational.com/Locations/Canada |
| Benson Industries | Central Saanich | http://www.bensonindustries.ca/index.php |
| CAMACC | Victoria | www.camacc.com |
| Campbell River Netloft | Campbell River | http://crnetloft.ca/ |
| <i>Canoe Brew Pub</i> | Victoria | http://www.canoebrewpub.com/ |
| Carmanah Technologies | Victoria | http://carmanah.com/ |
| Catalyst Paper | Crofton / Powell River / Port Alberni | |
| Category 12 Brewing | Central Saanich | http://category12beer.com/ |
| Cdn Bavarian | Chemainus | http://canbav.ca/ |
| CMI Custom Machining Ltd | Central Saanich | http://cmimachining.com/ |
| Codan Radio Communications | Victoria | http://www.codanradio.com/ |
| Coulson Group | Port Alberni | http://coulsoncedar.com/ |
| CR Metal Fabricators | Campbell River | http://www.crmf.bc.ca/ |
| Crest Sheet Metal | Victoria | http://www.crestsheetmetal.com/ |
| Daigle Welding & Marine (Eagle Craft Boats) | Campbell River | http://eaglecraft.bc.ca/ |
| De Vine Vineyards | Central Saanich | www.devinevineyards.ca |
| Discovery Trekking | Campbell River | http://www.discoverytrekking.com/ |
| Duncan Iron Works | Duncan | http://www.diw.ca/ |
| ElectroWear Manufacturing | Errington | http://electrowear.ca/index.php |
| EMCS Industries | Victoria | http://emcsindustries.com/ |
| ESI Environmental Sensors | Sidney | http://www.esica.com/index.php |
| Express Custom Manufacturing | Port Alberni | http://www.expresscustom.ca/index.php |
| Fanny Bay Oysters | Union Bay | http://www.fannybayoysters.com/ |
| Fast Signs | Victoria | https://www.fastsigns.com/652-victoria-bc-canada/ |
| Firebozz | Nanaimo | http://www.firebozz.com/ |
| First Light Technologies | Victoria | http://www.firstlighttechnologies.com/Index.aspx |

| Company | Municipality/City | Web Address |
|--|--|---|
| FTS Environmental | Victoria | http://ftsinc.com/ |
| Garside Signs & Displays | Victoria | http://www.garsidesigns.com/ |
| Geo Tech | Crofton | http://www.geotechindustries.com/ |
| Grant Signs | Campbell River | http://www.grantsigns.ca/ |
| Graphic FX Sign Works | Victoria | http://www.382sign.com/ |
| Great Little Box Company | Victoria | http://glbc.com/ |
| Green Mountain Aviation | Sidney | http://www.greenmountainaviation.com/ |
| Greg's Furniture & Upholstery | Victoria | http://www.greggsfurniture.com/ |
| Harbour City Kitchens | Central Saanich | http://harbourcitykitchens.com/ |
| Heo Works Industries | Langford | http://heoworks.com/corporate/ |
| Hobson Woodworks | Langford | http://www.hobsonwoodworks.com/ |
| Holdfast Metalworks | Nanaimo | http://www.holdfastmetals.ca/ |
| Imperial Welding | Chemainus | http://www.imperialwelding.com/ |
| Industrial Plankton | Victoria | http://industrialplankton.com/ |
| International Aero products | Courtenay | http://www.intaero.net/ |
| Iris Dynamics | Victoria | https://vs3.irisdynamics.com/ |
| Island Farms (Agropur Division Naturel) | Victoria | http://islandfarms.com/ |
| Island Overhead Doors | Nanaimo | http://www.islandoverheaddoors.com/ |
| Island Precision Manufacturing | Central Saanich | http://www.islandprecision.com/#home |
| Island Truss | Courtenay | http://islandtruss.ca/ |
| Islands West | Saanich | http://www.islandswest.com/ |
| JB Sheet Metal Ltd | Victoria | http://jbsheetmetal.com/ |
| Jemico Enterprises | Chemainus | http://www.paulcan.com/jemico-enterprises-ltd |
| Jespersen Boat Builders | Sidney | http://www.jespersenboats.com/ |
| JS Foster | Central Saanich | http://www.jsfoster.com/ |
| K& S Railings | Nanaimo | http://www.kandsrailings.ca/index.php |
| Keltic Seafoods | Port Hardy | http://www.kelticseafoods.com/index.html |
| Landmark Sign | Victoria | http://www.landmarksign.net/ |
| Lane Light | Victoria | http://www.itemltd.com/ |
| Latitude Tech | Saanich | http://latitudetech.com/ |
| Lifetimer Boats | Duncan | http://www.lifetimerboats.ca/ |
| Lighthouse Brewing | Esquimalt | http://www.lighthousebrewing.com/ |
| Live Edge Design | Duncan | https://www.liveedgesdesign.com/ |
| Market Group Ventures | Shawnigan Lake | http://www.mgvinc.com/ |
| Merridale Estate Winery | Cobble Hill | http://www.merridalecider.com/ |
| Metal Tech Industries | Chemainus | http://www.metaltch.ca/ |
| Modern Aluminium & Vinyl Products | Powell River | http://www.modern.ca/ |
| Modern Windows | Courtenay / Powell River | http://www.modern.ca/ |
| Morinwood | Victoria | http://www.morinwood.ca/index.html |
| Nanaimo Forest Products (Harmac) | Nanaimo | http://www.harmacpacific.com/ |
| Nanaimo Precast | Nanaimo | http://www.nanaimoprecast.ca/ |
| Natural Glacier Waters | Fanny Bay | http://www.naturalglacialwaters.com/ |
| Natural Pastures Cheese | Courtenay | http://www.naturalpastures.com/home/ |
| Nelson Roofing & Sheet Metal | Cumberland / Powell River / Campbell River | http://www.nelsonroofing.com/ |

| Company | Municipality/City | Web Address |
|--|-------------------|---|
| NFE Manufacturing | Chemainus | http://www.nanaimofoundry.com/ |
| Noboco Styro Containers | Campbell River | http://www.noboco.com/ |
| NorthWest FabWorks CNC Machining & Fabrication | Parksville | http://www.northwestfab.com/ |
| NSM Metal Fabricators | Nanaimo | http://www.nanaimosheet.com/ |
| Oceanetic Measurement | Sidney | http://www.oceanetic.com/ |
| Oceanus Reinforced Plastics | Sidney | http://oceanusplastics.com/ |
| Ooh La La Cupcakes | Victoria | http://www.oohlalacupcakes.ca/ |
| Oughtred Coffee | Victoria | http://www.oughtred.com/ |
| Paradise Island Foods | Nanaimo | http://www.paradise-foods.com/ |
| Peninsula Signs | Sidney | http://www.peninsulasigns.ca/ |
| Philbrooks Boatyards | Victoria | http://www.philbrooks.com/ |
| Plastics Plus Fabricating | Campbell River | http://www.plasticsplusfabricating.com/ |
| Playsted Sheet Metal | Victoria | http://playsted.com/ |
| Point Hope Maritime / RalMax | Victoria | http://pointhopemaritime.com/ |
| Pollen Sweaters | Lund | http://www.pollensweaters.com/ |
| Powell River Forest Products | Powell River | info@prforestproducts.com |
| Pro Elvis Jumpsuits | Nanaimo | http://www.proelvisjumpsuits.com/ |
| Profab Manufacturing | Chemainus | http://www.profabmanufacturing.net/ |
| Professional Components | Sidney | http://professionalcomponents.com/ |
| Prototype Equipment | Esquimalt | http://pedcan.com/ |
| Quality Box | Duncan | http://www.qualitybox.ca/ |
| Quester Tangent | Victoria | http://www.questertangent.com/ |
| Rack-A_Tiers | Saanich | http://www.rack-a-tiers.com/ |
| Red Arrow Brewing | Duncan | http://redarrowbeer.ca/ |
| Redlen Technologies | Victoria | http://redlen.ca/ |
| Reliable Controls | Victoria | http://reliablecontrols.com/ |
| Rockland Scientific | Victoria | http://rocklandscientific.com/ |
| Rocky Creek Winery | Cowichan Bay | http://www.rockycreekwinery.ca/ |
| Scott Plastics | Victoria | http://www.scottplasticsltd.com/ |
| SCS Steel Container Systems | Nanaimo | https://scsinc.ca/ |
| Sea Flora | Sooke | http://www.sea-flora.com/ |
| Sealand Aviation | Campbell River | http://www.sealandaviation.com/ |
| Seamor Marine | Nanaimo | http://seamor.com/ |
| Seaspan Victoria Shipyards | Victoria | http://www.seaspan.com/victoria-shipyards |
| Seastar Chemicals | Victoria | |
| Seaward Kayaks | Chemainus | http://www.seawardkayaks.com/ |
| Shelter Point Distillery | Campbell River | http://www.shelterpointdistillery.com/ |
| Sherwood Industries | Central Saanich | http://sherwoodindustries.ca/ |
| Sign Wace Designs | North Saanich | http://signwacedesigns.com/index.html |
| Southside Welding | Campbell River | http://www.southsideweldingcr.com/ |
| Specific Mechanical Systems | Central Saanich | http://specificmechanical.com/ |
| Spinnaker's Brewpub | Victoria | http://www.spinnakers.com/ |
| Starfish Medical | Saanich | |
| Sure Grip Controls | Victoria | http://www.suregripcontrols.com/ |

| Company | Municipality/City | Web Address |
|---|--------------------------|---|
| Surefloat Engineering - Engineered Concrete Docks & Marinas | Duncan | http://www.surefloat.com/ |
| Swans BrewPub | Victoria | http://swansbrewpub.com/ |
| Talon Signs | Victoria | http://talonsigns.com/index.html |
| Tara Precision | Central Saanich | http://taraprecision.com/ |
| Terra Remote Sensing | Victoria | http://www.terramote.com/ |
| Thermoproof Windows | Chemainus | http://www.thermoproof.ca/ |
| Thrifty Foods | Victoria | www.thriftyfoods.com |
| Tilly's Gallery | Campbell River | http://www.tillysgalley.ca/default.asp |
| Tilray | Nanaimo | https://www.tilray.ca/ |
| Titan Boats | Victoria | http://www.titanboats.com/ |
| Tower Fence | Victoria | http://www.towerfence.ca/ |
| Tower Kitchen & Millwork | Sidney | http://tkmw.ca/ |
| Town Site Brewing | Powell River | http://townsitebrewing.com/ |
| Tran Sign | Langford | http://www.transign.com/traffic/index.php |
| UK Sailmakers | Sidney | http://www.uksails.ca/ |
| United Engineering | Victoria | http://unitedengineering.ca/ |
| Universal Sheet Metal | Central Saanich | http://www.universalsheetmetal.ca/index.htm |
| Unsworth Vineyards | Mill Bay | www.unsworthvineyards.com |
| Van Ilse Windows | Victoria | http://www.vanislewindows.com/ |
| Van Isle Millwork & Kitchens | Courtenay | http://van-isle.com/ |
| Vancouver Island Brewery | Victoria | http://vanislandbrewery.com/ |
| Viberg Boot | Victoria | http://workboot.com/ |
| VIH Aerospace | Victoria | http://www.vih.com/ |
| Walker Technologies | Courtenay | http://www.walkersys.com/index.html |
| Wescon Doors (Cedar) | Duncan | http://www.wescondoors.com/ |
| West Isle Industries | Langford | http://www.westisle.net/ |
| West Wind Hardwoods | Sidney | http://www.westwindhardwood.com/ |
| Western Forest Products | Nanaimo (all Island) | http://www.westernforest.com/ |
| White Sails Brewing | Nanaimo | http://whitesailsbrewing.com/ |
| Wolf Boats | Courtenay | http://www.wolfboats.com/index.php |
| Wolf Brewing Company | Nanaimo | http://www.wolfbrewingcompany.com/ |
| York Portable Machines | Campbell River | https://www.yorkmachine.com/index.php |