



REPORT: FABRICATING WORKFORCE

Canada 
Alberta 
Government

**Community
Futures** 
Wild Rose


**ROCKY VIEW
COUNTY**
Cultivating Communities

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INTRODUCTION

Metal fabrication has been identified by communities in the Wild Rose region as a value-added sector ripe for investment, growth and innovation. It is a value-adding sector that contributes to the capacity of other key economic drivers in the region and province, including oil and gas, value-added agriculture, clean technology and renewable energy. The region includes Rocky View, Wheatland and Kneehill Counties as well as the Towns of Bassano, Trochu, Strathmore, Three Hills, the city of Chestermere, and numerous villages.

The region is home to Alberta's High Load Corridor, which is a strategic asset to the metal fabrication industry. A key consideration in growing this sector is access to a skilled and semi-skilled labour market. In 2015-16, Rocky View County commissioned a Labour Market Study that included a Location Quotient Analysis. The findings show that the number of people currently employed in the manufacturing sector is significantly low on a per capita basis compared to the province as a whole. This raises a concern regarding the region's capacity to support this high growth potential sector. The Government of Canada, the Government of Alberta, Rocky View County and Community Futures Wild Rose are partnering to develop a labour market profile of metal fabrication in the region in order to anticipate challenges, strategize with stakeholders and ultimately to ensure that the region has the labour force to support value-added growth and innovation.

Workforce development is a critical component to healthy economic development. There are two basic approaches to workforce development. The first focuses on the needs of industry and strategies on how to develop, retain and/or attract the needed skills. The second focuses on leveraging the skills of the local workforce to drive economic opportunities. Together these two approaches represent both the supply and demand in the labour market. The goal of this project is to create balance in the labour market.

This report was made possible thanks to the support of The Government of Canada, the Government of Alberta, Rocky View County and Community Futures Wild Rose.

PROJECT OVERVIEW

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The project had three key phases. The first consisted of an environmental scan, data analysis and literature review. The results of this phase were summarized in a document, and presented to stakeholders. On May 1st, 2017, Community Futures Wild Rose hosted a community stakeholder workshop in Strathmore to bring key community leaders together to discuss the results of the environmental scan, data analysis and literature review. The focus of the session was to engage those stakeholders who would most likely utilize the labour market intelligence and take concrete actions to support the growth and innovation of metal fabrication in the Wild Rose Region. The second phase was community and industry consultation, consisting of community workshops, targeted interviews, as well as surveys. The underlying intent of this phase was to groundtruth the preliminary findings and gather intelligence from the region. The findings of the stakeholder consultation process were presented at a second community session held on June 5th. At this session, industry and community leaders strategized and identified opportunities to support growth and innovation in the sector. The final phase was the development of a sector profile and report, including analysis of stakeholder input, visual design and representation of the information, as well as the development of recommendations to support next steps.

PROJECT OUTLINE

Environmental Scan and Literature Review

Surveys & Interviews

Community Sessions

 Session 1 – May 1

 Session 2 – June 5

Sector Profile and Report

METHODOLOGY

OUTCOMES, MEASURES & TARGETS

To focus the project on achieving meaningful outcomes, an outcome performance framework was established that identifies clear immediate, short-term and long-term outcomes, measures and targets. This has allowed the project team to strategically focus efforts on the most impactful approaches to completing the deliverables. For example, it was determined early in the project that face-to-face stakeholder engagement was necessary in order to achieve the short term outcome targets. As a result, two engagement sessions were scoped into the process, resulting in high value engagement and facilitated strategic planning.

Immediate	Stakeholders are consulted in the development of a metal fabrication labour market profile of the region.	# of Community and Industry Stakeholders Consulted.	: 10 communities and 10 Industry by July 30, 2017.
Short-term	Stakeholders have information and insight into the workforce needs of the metal fabrication sector required to strengthen the labour market.	# of Concrete steps taken by community stakeholders to support Metal Fabrication Labour Market Development	3 by December 30, 2017
Long-term	Existing and prospective metal fabrication businesses in the region have access to skilled and semi-skilled labour needed to support growth and innovation in the sector	Growth of employment in Metal Fabrication in the region between 2016-2021 according to Census Data.	Equal to or greater than growth in the province.

ENVIRONMENTAL SCAN & LITERATURE REVIEW

We set out to systematically explore and interpret the industry landscape in order to better understand the trends, drivers of change, Strengths Weaknesses, Opportunities and threats in relation to the metal fabrication and the workforce.

The scan was broken into two phases;

1. Information gathering
2. Evaluation

ENVIRONMENTAL SCAN SCOPE

1. Macro Environment

Larger societal forces that effect the micro environment

We included an overview of Canada, Alberta and the Calgary Region

2. Micro Environment (Operating Environment of the Wild Rose Region) Immediate environment that effects the performance,

including: Suppliers/supply chain

Metal Fabrication Manufacturing Businesses

Customers/clients

Workers

Training

Information Sources;

Conference board of Canada
Calgary Economic Development

Statistics Canada

National Household Survey Results

Government of Canada

Canada Business Network

Government of Alberta

Canadian Manufacturers and Exporters

Alberta Steel Manufacturers

Calgary Regional Partnership

TD Economics

SAIT

Canadian Metalworking

Canadian Fabricating & Welding

Factor 5 Group conducted the environmental scan and literature review to understand and establish the context of the project. The key challenge in interpreting the secondary information was to balance the three key factors: time, geography and sector.

To guide the scan and review process, 7 core framing questions were established. These questions were expanded following the first community session to include a range of other perspectives as identified by stakeholders.

What metal fabrication is taking place in Alberta and the region?

Who is doing the metal fabrication and where?

Who is training metal fabricators? What training do they need?

What are the anticipated changes in the sector?

What are the location considerations for metal fabrication companies?

What data is currently available?

Who are key industry stakeholders?

The findings of the scan were then grouped together using the STEEP classification framework as follows:

Social – Unions, associations etc., education & training (opportunities and gaps), labour and workforce populations,

Technological – Automation, supply chain management systems, R&D activity, technological change rate

Economic – Cost, GDP, sector and sub-sector growth,

Environmental – Geographic, Resource availability, regulation, impact, carbon tax/cap incentives, retrofitting, etc.

Political – Laws, trade restrictions and tariffs, enviro. Regulation, political policy, employment law, tax policy, etc.

SURVEYS AND INTERVIEWS

There were two surveys drafted drawing on the information that community session participants identified as being useful in advancing local understanding and leading to action. One was geared towards collecting insights from industry and business, the other was for government and community insights.

Surveys were conducted on line and by phone by compiling a list of industry, government and community stakeholders and sending out emails with attachments to Survey Monkey. In cases where participants were reached by phone, the survey was administered verbally, and entered into Survey Monkey by the administrator.

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COMMUNITY SESSIONS

As the projects administrator and regional steward, Community Futures Wild Rose provided the venue, free lunch and promoted the events throughout its extensive network of community, municipal and industry leaders.

As a result, both the community sessions were attended by a regional cross section of municipal and community leaders interested in advancing the metal fabrication sector in the region. A complete list of attendees can be found in the Appendix. The sessions included participants from the private, public and non-profit sectors, including municipalities, provincial and federal departments, entrepreneurs, metal fabrication operators and institutions.

FINDINGS

ENVIRONMENTAL SCAN & LITERATURE REVIEW

The North American Industry Classification System (NAICS) identifies 9 distinct industry activities represented by 9 distinct codes. NAICS is used by statistics Canada to determine the number of business and employees in a given industry, in a given geographic area. The NAICS codes that were the primary focus of this study include 3321-9. To analyze industry, a range of geographical areas were used as reference, including municipal, metropolitan and provincial census areas.

1. Forging & stamping
2. Cutlery & handtool manufacturing
3. Architecture & structural metals manufacturing
4. Boiler, tank & shipping container manufacturing
5. Hardware manufacturing
6. Spring & wire product manufacturing
7. Machine shops turned product screw nut & bolt manufacturing
8. Coating & engraving
9. 'Other' fabricated metal product manufacturing

The following is a breakdown of Metal Fabrication by the numbers.

Canada	Alberta
12,713 Firms	1930 Firms
279,400 Employed	35,000 Employed
6% Annual Growth in Outputs	2 Large Firms (>500)
4% Cost Advantage over USA	60% used in Alberta
10 Billion Exports	4 Billion Exports
20 Billion Imports	1.5 Billion Imports

One of the key reasons that it is important to take a detailed look at the potential of the metal fabrication sectors in the Wild Rose region is because it is projected by Stats Canada to be a high growth sector over the next 7 years.

In 2016, sales of Alberta's processed food and beverage industry were \$14.6 billion making it Alberta's top manufacturing industry on a revenue basis.

Based on the available literature, the following are the key metal fabrication labour force challenges in Alberta; however, due to the boom-bust nature of the Alberta economy and the time lag between the most recent reports and the current circumstances, these challenges do not accurately depict today's labour market dynamics.

8 None-the-less, there are clear trends that will have a significant impact on the future of the labour market, including the demographics of the workforce. The metal fabrication labour force is aging more rapidly than the economy as a whole. Moreover, much of the technical knowledge that is critical to the industry is learned through experience, creating a critical need to transfer the knowledge to future generations.

"Automation is expected to limit the employment growth in the industry, however, there will still be a significant need to replace the aging workforce as it leaves the labour market."
- *The Future of Manufacturing Labourforce in Canada, By Prism Economics and Analysis, for Canadian Manufacturers and Exporters, 2015*

Businesses identify workforce requirements as being critical to business expansion. If not addressed, weakness in the labour market can restrict the economic potential of the industry in the region.

In 2012, the Edmonton CMA accounted for 53% of Alberta manufacturing sales (\$38 billion out of \$71.7 billion), Calgary for 17% (\$12.2 billion) and the rest of Alberta for 30% (\$21.6 billion). Out of the \$6.8 billion sales increase between 2007 and 2012, Edmonton accounted for \$6.1 billion of the increase.

In the Edmonton CMA, by far the largest sector on a sales basis is the refineries sector (\$17.7 billion in 2012), followed by chemicals (\$5.6 billion), machinery (\$4.4 billion), fabricated metals (\$3.3 billion) and food processing (\$2.0 billion).

In the Calgary CMA, the largest sector is the machinery sector (\$2.8 billion in 2012), followed by fabricated metals (\$1.7 billion), food processing (\$1.4 billion) and primary metals (\$881 million).

In the rest of Alberta, the largest sector is food processing (\$6.8 billion in 2012), followed by chemicals (\$6.0 billion – probably mainly in the Red Deer area), fabricated metals (\$1.2 billion) and machinery (\$952 million).

In 2012, manufacturing employment in Edmonton was 59,164, in Calgary 43,431 and in the rest of Alberta 38,767.

In Alberta, there are a wide range of education and training providers that are important stakeholders in the development of the metal fabrication workforce, including institutes of technology, community colleges, Universities, Centres of Excellence and Provincial programs.

Based on the preliminary findings, there are a number of strategies identified that can support the growth and innovation of metal fabrication in the Wild Rose Region, including:

- Cross Sector Planning for Demographic Change
- Research Impacts of Technology and Trade Patterns on Labour
- Regional Training Consortia
- Sector Image and Profile Campaign
- In-house Employee Training Programs
- Labour Market Research

LABOUR MARKET CHALLENGES AND SOLUTIONS

Labour Market Challenges

- Recruitment gap in acquiring skills needed
- Aging and retiring workforce
- Recruitment challenges affect company growth
- Technology and automation is expected to restrict job growth to replacement even while sector output grows
- High competition for skilled workers requires employers to provide incentives to attract talent

Labour Market Solutions

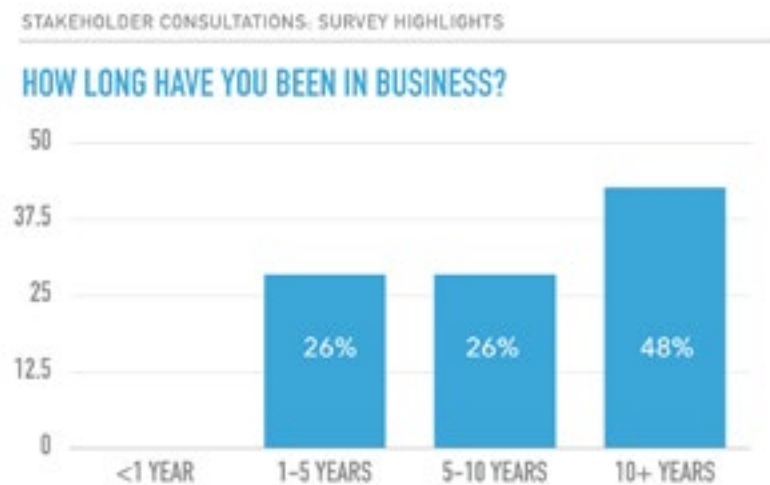
- Cross Sector Planning for Demographic Change
- Research Impacts of Technology and Trade Patterns on Labour
- Regional Training Consortia
- Sector Image and Profile Campaign
- In-house Employee Training Programs
- Labour Market Research

SURVEYS AND INTERVIEWS

The following are the highlights from the surveys:

- 100% of Businesses are looking to expand
- 100% of Businesses are looking to diversify
- 28% of Businesses are looking to source locally
- 67% of Respondents imagine other uses for their shops
- 100% of Respondents do not currently offer benefits but all would like to.

As demonstrated by the figure below, almost half of the responding businesses indicated that they were established over 10 years ago. Noticeably, no businesses that responded have been started in the past 12 month, while 26% were established in the past 5 years.



- There's currently an imbalance in the regional labour market as a result of weak industry demand for metal fabrication due to the decline in the oil and gas sector.

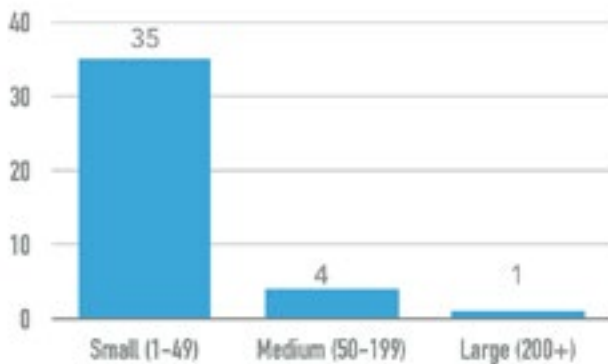
To bring balance to the labour market requires increasing the demand for local metal fabrication.

- When oil fully recovers, there will be high competition for skilled workers again. This will require employers to provide incentives to attract talent.
- One of the surprise findings of the stakeholder consultation process was that there are little to no sector specific skills required to move into emerging sectors. The training needed to succeed is readily available, while the skills are generally acquired on the job.

A key finding of the data analysis of the businesses in the region is that the sector is dominated by small and medium sized enterprises (SMEs) which are likely to be locally owned, with only one large company with more than 200 employees. The ramifications of this are that these local businesses contribute significantly to the local economy, not only directly through jobs and investment, but through local taxes, charitable donations etc.

INDUSTRY SNAPSHOT

FABRICATED METAL BUSINESS SIZE FOR THE WILD ROSE REGION



The most significant source of sector insight came from targeted interviews of key sector stakeholders, who identified that while there were barriers to metal fabrication growth in Clean Technology and Energy, there were significant opportunities in Value Added Agriculture. Specifically, there is a growing demand in south east Asia for regulated foods that are grown, produced and distributed to Alberta standards. This presents a very significant opportunity for the Wild Rose region, given its geographical location, and existing agricultural capacity. This insight was further ground-truthed by participants in the June Community Session, as well as independent sources.

HEMP

An additional agricultural opportunity identified relates to the metal fabrication of Hemp processing equipment. While the region is well suited to growing hemp for both seed and fibre, this early stage industry is looking for European manufactured processing equipment. However, drawing on the regions agricultural tradition and strategic location along the high load corridor, and in light of the high potential for hemp industry growth, there may be significant opportunities to replace the import of European metal fabrication with local metal fabrication.

COMMUNITY SESSIONS

Based on the insight provided by industry stakeholders and confirmed by community session participants, a key challenge to labour market development is that it takes time doing low value work to acquire the basic skills to succeed in the shop environment. This lag time between when entrants begin working, and when they begin welding, results in many young people leaving before they get a footing in the industry.

One potential solution to this problem identified at Session 2, was the development of an internal training program that better communicates and demarcates the progress being made by early employees while they are learning about the shop environment. A best practice that can be used for modeling, ie: The KNACK system developed by Potluck Cafe to teach culinary training practices.

Metal fabrication was identified as a critical asset to the development of a variety of industries, including most notably Value Added Agriculture. The challenge identified is that if villages lose their metal fabricator due to the current decline in demand, it can jeopardize the future of the communities sustainability and economic capacity to support emerging sectors. Therefore, particularly in small rural communities, it is critical to support industry development and for local metal fabricators to be included in sector development initiatives.

The overarching theme of the project's findings is that there is an imbalance in the regional labour market as a result of underutilized metal fabrication capacity. The decline in the oil and gas sector has led to significant downsizing on the part of metal fabrication businesses. To bring balance to the labour market requires increasing the demand for metal fabrication.

Skills & Special Training Required

Journeyman Welding	Fall Arrest
B Pressure Ticket	Powerline
First Aid	Contractor Orientation
Whims	Apprenticeship
H2S	Sheet Metal Mechanic
TDG	Gas fitting & A/C

CONCLUSIONS

CONCLUSIONS BASED ON KEY FINDINGS

Based on the findings of this project, it is clear that balancing the labour market requires increasing the demand for local and regional metal fabrication. The demand for metal fabrication is driven by primary and secondary industries, and therefore it is critical to look upstream to better assess the region's assets and potential.

When conducting the labour market analysis, the emphasis was placed squarely on metal fabrication businesses and employees. However, to understand emerging demand, it is necessary to look to the skills and training needed to create the demand. Most notably, metal fabrication is a physical process that results from engineering and design. Therefore, engineers are a key piece of the labor value chain that contribute to the metal fabrication labour market. This poses a significant opportunity for the Wild Rose region, as there is a large number of under and unemployed engineers from the oil and gas sector in the Calgary region and beyond.

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The next step down the value chain from engineers is entrepreneurs and investors. These skills are needed to identify and pursue specific business opportunities based on market intelligence. In the case of the Wild Rose Region, Bow Valley College is actively developing an entrepreneur program, that can be fine tuned to support the growth and innovation of metal fabrication in the region by creating awareness among local entrepreneurs of the region's existing metal fabrication capacity.

Growth and innovation in the metal fabrication sector begins with market intelligence, and the local capacity to identify strategic opportunities. In the Wild Rose region, the most compelling opportunity appears to be in value added agriculture and the growth of agri-foods for the international market place. However, the economic benefits of this sector stem primarily from one-time capital investments which do not create economic stability for the region.

By contrast, becoming the centre of manufacturing of metal goods, such as manufacturing and processing equipment related to the growth of the bio-composite/hemp industry offers a higher risk, higher return economic opportunity, as it could result in the sustainable growth of a manufacturing industry in the region.

Finally, improved communication between metal fabrication sector stakeholders and other economic drivers can improve the capacity of the local metal fabrication sector. As a result of their relatively small size, operators in the region express an inability to compete for large projects. Strategic collaboration within the sector could improve the efficiency and scalability of industry in the region.

PROJECT OUTCOMES

This project set out to achieve three sets of outcomes: immediate, short-term, and long-term.

Immediate Outcomes Acheived

The immediate outcomes targets were focused on the level of consultation that was included in the process. As identified below, the project significantly over acheived by engaging at least 33 regional stakeholders.

	OUTCOME	MEASURE	TARGET	Achievement
Immediate	Stakeholders are consulted in the development of a metal fabrication labour market profile of the region.	# of Community and Industry Stakeholders Consulted.	: 10 communities and 10 Industry by July 30, 2017.	12 industry (3 participants, 8 Surveys, 1 site visit, 1 phone.) 10 Municipal , 1 post-secondary, 12 employment agency, 4 prov., 4 Community Futures by June 30, 2017.
Short-term	Stakeholders have information and insight into the workforce needs of the metal fabrication sector required to strengthen the labour market.	# of Concrete steps taken by community stakeholders to support Metal Fabrication Labour Market Development	3 by December 30, 2017	Skill Metal Site Tour and Strategic Planning Meeting June 21, 2017 including Alberta Labour, CF Wild Rose and Factor 5 Group. *Outcomes to watch for listed below
Long-term	Existing and prospective metal fabrication businesses in the region have access to skilled and semi-skilled labour needed to support growth and innovation in the sector	Growth of employment in Metal Fabrication in the region between 2016-2021 according to Census Data.	Equal to or greater than growth in the province.	

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Short-term Outcomes Achieved and Anticipated

Throughout this project, a wide range of stakeholders participated, provided input and identified potential next steps to support the growth and innovation of metal fabrication in the Wild Rose region. They range from actions that can be taken by individual and small groups of stakeholders, to system level actions to build the capacity of the sector and strategically advance opportunities.

As a direct result of this project, select sector stakeholders held a strategic planning session and industry site tour at Skill Metal fabricators in Bassano, on June 21, 2017. The session included the identification of next steps in advancing the sector, a tour of the facility, mapping the businesses value chain assessing the practical needs of industry. As a result, regional stakeholders have identified specific next steps to supporting growth and innovation in metal fabrication.

RECOMMENDATIONS

- 1) Leverage the information compiled in the Sector Profile to engage community and industry leaders across the Wild Rose Region to facilitate dialogue on sector growth and innovation.
- 2) Facilitate networking and community capacity building among industry leaders, supported by government and community leaders, including the prospect of an industry association, social enterprise or cooperative.
- 3) Identify and organize specific training programs needed to support growth and innovation in metal fabrication.
- 4) Provide market intelligence on emerging markets and support fabricators in diversifying and expanding their markets, with emphasis on agriculture including both agrifood value added processes and bast fibre (hemp) crop processing equipment.
- 5) Conduct research including a detailed analysis of the metal fabrication supply chain in the region, import replacement opportunities and export market assessment, to identify untapped business opportunities.
- 6) Establish a metal fabrication incubator in the region by strategically leveraging assets including redundant schools and equipment.

APPENDIX

Survey 1 Community & Government

Question 1: How can Metal Fab Benefit your Community?

Question 2: Who is doing Metal Fab and Where?

Question 3: Who are the Key Industry Stakeholders?

Question 4: How can communities take advantage of location; ie: transcanada, high-load corridor, rail lines, airport etc.?

Question 5: Are there any anticipated changes to the sector?

Question 6: What are the export development opportunities?

Question 7: In your opinion and/or experience, what are the location considerations for metal fabrication companies?

Question 8: What training do metal fabricators need? Who is doing the training? Who could?

Question 9: Is transitional and/or affordable housing available for the workforce?

Survey 2 Industry & Business

Question 1: How long have you been in business?

Less than a year

1-5 Years

5-10 Years

10 + Years

Question 2: How many people do you employ?

Question 3: Are you looking to expand and/or diversify?

Question 4: Is there anything you have difficulty sourcing locally?

Question 5: Do you know of or offer benefits, programs and/or other supports for your employees?

Question 6: What is your specialization?

Question 7: What special skills are required for your business?

Question 8: What type of training is required for your employees? Who could provide this training?

Question 9: Is there anything else you can imagine that your shop equipment could be used for?

Question 10: How could younger people better access the training and jobs in metal fabrication?

Fabricating Workforce – Community Session # 1 Notes May 1, Strathmore, Alberta

Contacts who provided feedback:

- Sharmin (McBride) Ssurani@mcbridecareergroup.com (587) 437-5765
- Loreleigh Peterson (Irricana) (403) 819-3375
- Gaylene Smith (McBride) gsmith@mcbridecareergroup.com (403) 934-4305
- Mike Worthington (Entrepreneur) worthingtonmike@hotmail.com (403) 540-4842
- Patrick Earl ([Kneehill](#))
- [Jacqueline Buchanan](#) (Three Hills) 403 443 5822
- David Kalinchuk
- Marilyn MacArthur (Bassano) community@bassano.ca (403) 641-3788
- Joe Pedersen (Standard) pedersen.ja@gmail.com

Questions:

Are the product financially viable?

Are the products priced competitively?

Is what is being fabricated a specialize private sector feature?

Benefits for employees and support available?

What type of training is needed?

Who could offer this training?

Is there opportunity to expand and diversify?

What is your specialization?

Have you diversified? If so How?

How else can your shop and equipment be used?

What do you wish you could source locally?

What specific skills are needed?

How can younger people access programs and jobs?

Export market development opportunities?

Supply chain and logistics?

Succession Planning?

Is transitional and affordable housing available?

What is the supply chain carbon footprint and full cycle economic analysis including carbon, water, energy and regional health impact?

Analysis of metal works value chain, global competitiveness and opportunities

How can communities take advantage of location on the TransCanada, high load corridor, rail lines, air?

Impact of housing, rural homelessness, need for auxiliary businesses

How can metal fabrication benefit your community?

Why did shop in Bassano close?

What specific skills are needed?

Q: Who specifically should we be interviewing?

A:

- Rockyford Steel – Adrian DeGroot
- D.Alta Steel Fab – Dave Schadlich
- Highschool Counsellors
- Employees
- Agencies and Government Programs
- Welding Companies
- Lazer Metal Companies
- R and D Operations
- Shannon Mervold COO McBride Career Group smervold@mcbridecareergroup.com (403) 200-1628
- Wheatland Metal Products. Ltd. (Stainless Steel) Strathmore
- Jody @ TCB in Brooks (Metal Manufacture Repair and Sales) Jody@tcbwelding
- Operators
- Farms, Oil and Gas, Schools and Post-Secondary
- Unemployed fabricators
- Logistics companies: CN, CP,
- CAOs, EDOs, Planners, Chambers
- Golden Hills School Board
- Olds College

Q: How do you envision using this information?

A:

- Assisting people build careers in trades (McBride)
- A guide for government to offer required labour programs and financial assistance to industry trade schools to set up regionally in small towns (Irricana)
- Identify areas where talent is lacking (McBride)
- Possible development of training opportunities (McBride)
- Partnership to place skilled workers (McBride)
- Market and Regional Research- where to expand? Where to sell and or partner with projects, people and environment. (Worthington)
- Learn the concerns of the community leaders, et al through networking (Worthington)
- Sector focused strategic planning (Kneehill)
- Sharing with the community and existing fabricators, investors (Three Hills)
- Sharing with schools for programming and mentorship (Three Hills)

- Employment Opportunities and off farm jobs
- Investment Attraction
- Serving Site Selectors Needs
- New Project Attraction – Pre-feasibility
- Business Retention and Expansion
- Attracting workers and investors
- To promote awareness in my community

Comments:

- “Very Exciting, lots of potential for opportunity assessment, implementation and impact” (MW)
 - “Rural Homelessness is primarily hidden. Often Youth and single parents couch surfing. This is a huge resource as these people often move out of the area to find work and housing. IE “go back to for Mac when prices go up”. Or “Move out of the area to larger centre once Damage and Rent is saved”
 - “Interested to see findings”
 - “Great start to this project”
- Source: Jim Brown’s High Load Corridor Study (Van Horne)

Additional Notes:

Need to assess the supply and value chains to identify opportunities for import replacement and export development.

- Next steps as identified by stakeholders during the session included
 - o R and D incubator in Standard School including drafting program and labs
 - o Mentorship program
 - o Leverage Foreign Trade Zone Designation and promote through Chambers
 - o Succession Planning and Match Making Program
 - o Employment Career Fair
 - o Develop Career Path Supply Chain
 - o Inform government
 - o Assess opportunities for import replacement
 - o Investment Attraction Program
 - o Identify specific skills needed
 - o Market Research (regional, market access, partners)
 - o Partnership opportunities between gov, institutions and private sector
- Recommendation to design next project with focus on supply chain development, logistics, import replacement, export development and investment attraction/facilitation

Fabricating Workforce – Community Session # 2 Notes June 5, 2017, Strathmore Alberta

On Monday, June 5th 2017, Community Futures Wild Rose hosted its second community session to re-engage community and industry stakeholders to identify opportunities for collaboration to support growth and innovation in metal fabrication. The session started with a brief overview of the preliminary findings presented in May, and focused on the input provided by local and regional stakeholders. Drawing on the prospective actions identified earlier in the process, the session concluded with discussion of next steps and best practices from other sectors in the region.

The session included participants from the private, public and non-profit sectors, including municipalities, provincial and federal departments, entrepreneurs, metal fabrication operators and institutions.

The Wild Rose region consist of 34 communities, ranging from City and Towns, to Villages and Counties.

(one of the questions raised related to the discrepancy between Total Revenue in Canada and Alberta. While Canada has approx. 6 times the number of businesses and 8 times the number of Employees, it has 54 time the amount of total revenue.)

In Alberta, the Metal Fabrication sector is dominated first by Metal Product Manufacturing, followed by Architectural and Structural Manufacturing.

In the Wild Rose region, machine shops are the most numerous metal fabrication businesses, followed by Plate Work and Structural Product Manufacturing and Metal Building

A key finding of the data analysis of the businesses in the region is that the sector is dominated by small and medium sized enterprises (SMEs) which are likely to be locally owned, with only one large company with more than 200 employees. The ramifications of this are that these local businesses contribute significantly to the local economy, not only directly through jobs and investment, but through local taxes, charitable donations etc.

A number of community engagement tools were used to gather input and feedback from regional stakeholders from government, industry and communities during May and June 2017. These included community sessions, targeted interviews, and surveys.

The most notable finding is that the imbalance in the regional labour market is a result of weak industry demand for metal fabrication. The decline in the oil and gas sector has led to significant downsizing on the part of metal fabrication businesses. To bring balance to the labour market requires increasing the demand for metal fabrication.

At Community Session #1 held in May 2017, the following actions were identified as prospective next steps that stakeholders could/would take to action the findings of the project. This initial list was later revisited at the close of Community Session #2 in June 2017.

Surveys were conducted on line and by phone by compiling a list of industry, government and community stakeholders and sending out emails with attachments to Survey Monkey. Then, the list was contacted by phone, starting with those contacts that did not have email addresses. In cases, where participants were reached by phone, the survey was administered verbally, and entered into Survey Monkey by the administrator.

The following are the highlights from the surveys:

As demonstrated by the figure below, almost half of the responding businesses indicated that they were established over 10 years ago. Noticeably, no businesses that responded have been started in the past 12 months, while 26% were established in the past 5 years.

One of the surprise findings of the stakeholder consultation process was that there are little to no sector specific skills required to move into emerging sectors. The training needed to succeed were readily available, while the skills are generally acquired on the job.

Based on the insight provided by industry stakeholders and confirmed by community session participants, a key challenge to labour market development is that it takes time doing low value work to acquire the basic skills to succeed in the shop environment. This lag time between when entrants begin working, and when they begin welding, results in many young people leaving before they get a footing in the industry.

One potential solution to this problem that was identified at Session 2 was the development of an internal training program that better communicates and demarcates the progress being made by early employees while they are learning about the shop environment. A best practice that can be used for modeling such program is the KNACK system developed by Potluck Cafe to teach culinary training practices.

Metal fabrication was identified as a critical asset to the development of a variety of industries, including most notably Value Added Agriculture. The challenge identified is that if villages lose their metal fabricator due to the current decline in demand, it can jeopardize the future of the communities sustainability and economic capacity to support emerging sectors. Therefore, particularly in small rural communities, it is critical to support industry development and for local metal fabricators to be included in sector development initiatives.

The most significant source of sector insight came from Tom McCaffery, Director of Industrial Manufacturing with Alberta Economic Development and Trade. McCaffery identified that while there were significant barriers to metal fabrication growth in Clean Technology and Energy, there were significant opportunities in Value Added Agriculture. Specifically, a recent study conducted by the department identified a growing demand in south east Asia for regulated foods that are grown, produced and distributed to Alberta standards. This presents a very significant opportunity for the Wild Rose region, given its geographical location, and existing agricultural capacity.

This insight was further ground-truthed by participants in the June Community Session, as well as independent sources. An additional agricultural opportunity identified relates to the metal fabrication of Hemp processing equipment. While the region is well suited to growing hemp for both seed and fibre, this early stage industry is looking for European manufactured processing equipment. However, drawing on the regions agricultural tradition and strategic location along the high load corridor, and in light of the high potential for hemp industry growth, there may be significant opportunities to replace the import of European metal fabrication with local metal fabrication.

In 2012, the Edmonton CMA accounted for 53% of Alberta manufacturing sales (\$38 billion out of \$71.7 billion), Calgary for 17% (\$12.2 billion) and the rest of Alberta for 30% (\$21.6 billion). Out of the \$6.8 billion sales increase between 2007 and 2012, Edmonton accounted for \$6.1 billion of the increase.

In the Edmonton CMA, by far the largest sector on a sales basis is the refineries sector (\$17.7 billion in 2012), followed by chemicals (\$5.6 billion), machinery (\$4.4 billion), fabricated metals (\$3.3 billion) and food processing (\$2.0 billion).

In the Calgary CMA, the largest sector is the machinery sector (\$2.8 billion in 2012), followed by fabricated metals (\$1.7 billion), food processing (\$1.4 billion) and primary metals (\$881 million).

In the rest of Alberta, the largest sector is food processing (\$6.8 billion in 2012), followed by chemicals (\$6.0 billion – probably mainly in the Red Deer area), fabricated metals (\$1.2 billion) and machinery (\$952 million).

In 2012, manufacturing employment in Edmonton was 59,164, in Calgary 43,431 and in the rest of Alberta 38,767.

Based on the findings of this project, it is clear that balancing the labour market requires increasing the demand for local and regional metal fabrication. The demand for metal fabrication is driven by primary and secondary industries, and therefore it is critical to look upstream to better assess the regions assets and potential.

When conducting the labour market analysis, the emphasis was placed squarely on metal fabrication businesses and employees. However, to understand emerging demand, it is necessary to look to the skills and training needed to create the demand. Most notably, metal fabrication is a physical process that results from engineering and design. Therefore, engineers are a key piece of the labor value chain that contribute to the metal fabrication labour market. This poses a significant opportunity for the Wild Rose region, as there is a large number of under and unemployed engineers from the oil and gas sector in the Calgary region and beyond.

The next step down the value chain from engineers is entrepreneurs and investors. These skills are needed to identify and pursue specific business opportunities based on market intelligence. In the case of the Wild Rose Region, Bow Valley College is actively developing an entrepreneur program, that can be fine tuned to support the growth and innovation of metal fabrication in the region by creating awareness among local entrepreneurs of the regions existing metal fabrication capacity.

In conclusion, growth and innovation in the metal fabrication sector begins with market intelligence, and the local capacity to identify strategic opportunities. In the Wild Rose region, the most compelling opportunity appears to be in value added agriculture and the growth of agri-foods for the international market place. However, the economic benefits of this sector stem primarily from one-time capital investments which do not create economic stability for the region.

By contrast, becoming the centre of manufacturing of metal goods, such as manufacturing and processing equipment related to the growth of the bio-composite/hemp industry offers a higher risk, higher return economic opportunity, as it could result in the sustainable growth of a manufacturing industry in the region.

Finally, improved communication between metal fabrication sector stakeholders and other economic drivers can improve the capacity of the local metal fabrication sector. As a result of their relatively small size, operators in the region express an inability to compete for large projects. Strategic collaboration within the sector could improve the efficiency and scalability of industry in the region.

Recommendations;

Throughout this project, a wide range of stakeholders participated, provided input and identified potential next steps to support the growth and innovation of metal fabrication in the Wild Rose region. They range from actions that can be taken by individual and small groups of stakeholders, to system level actions to build the capacity of the sector and strategically advance opportunities.

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Supply Chain

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Canada 

Alberta 
Government



The Province of Alberta is working in partnership with the Government of Canada to provide employment support programs and services.