

**Applying Technology to Advance  
Business Innovation and Technology in  
the Prairie Innovation Enterprise Region  
(PIER)**

In partnership with:



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## Introduction

The Prairie Agricultural Machinery Institute (PAMI) had a project agreement in place with the Industrial Research Assistance Program of the National Research Council (NRC-IRAP) to contribute to increasing the innovation capacity of small and medium size enterprises (SMEs).

The Prairie Innovation Enterprise Region (PIER) has a mandate to build regional economies, foster a culture of enterprise and innovation, and build on competitive advantages.

Given the original objective of the PAMI/NRC-IRAP initiative of reaching out to 25 manufacturing SMEs in the province of Saskatchewan, the number of companies located in the PIER region that would have been impacted by the project was limited. With support from PIER, the PAMI/NRC-IRAP initiative was expanded to include 18 manufacturing SMEs in the PIER region (Stage II). Later on, it was decided that six nonmanufacturing SMEs should also be targeted (Stage III).

## Project Delivery

PAMI, as a provider of innovation support services, deemed necessary to intervene at three levels in order to contribute to increasing the innovation capacity of Saskatchewan SMEs:

- (1) Understanding the needs of SMEs in terms of innovation support services
- (2) Understanding the existing network of innovation support services
- (3) Finding and developing relationships between PAMI services and the needs of SMEs

An information package was developed as a tool to communicate with SMEs. The package was aimed at providing SMEs with information pertaining to NRC-IRAP programs, tax incentive programs for innovation, such as the Scientific Research and Experimental Development (SR&ED) program as well as organizations such as PIER, with a mandate and/or objective to provide innovation support services. Finally, PAMI's technical services offering was introduced to SMEs as part of the information package.

An important part of the presentation delivered by PAMI personnel concerned collecting information on the needs of SMEs as they relate to their innovation capacity. Data was collected on the challenges or obstacles faced by SMEs in terms of their ability to innovate. A total of 25 companies were contacted (19 Stage II and 6 Stage III).

The objective of the Stage III project with PIER was to expand beyond the core of companies that focus on traditional machinery manufacturing to other sectors that could benefit from innovation support services and to determine their need for innovative technology advancement and new business strategies in order to be more efficient and competitive.

An analysis of businesses and industries in the region was conducted with PIER, and five business sectors that could benefit from innovation and technology advancement were identified: trucking and

transportation, meat processing, seismic drilling, water and oil filtration, and seed cleaning and processing.

The identified sectors are quite diverse and each may have different requirements such as market research, introduction to new technologies, or skills training. PAMI met with six companies representing the five targeted Stage III sectors and 19 Stage II companies to conduct an assessment. The PAMI/NRC-IRAP/PIER information package was delivered and company tours, discussions, and assessments were conducted.

## Conclusions

The awareness of support services for innovation was quite variable. Larger companies seem to have more experience with support services, IRAP programs and SR&ED tax credits in particular. Regarding these programs, the resources necessary for claiming and reporting was deemed significant and some companies have mentioned that consultants may be solicited. The NRC-IRAP's Digital Technology Adoption Pilot Program (DTAPP), aimed at increasing the productivity of SMEs, was largely unknown and believed by several companies to be quite relevant to their operations

For Stage III companies, the needs were quite diverse so it is not possible to draw any one set of conclusions that fits all five sectors sampled. Generally only one company per Stage III sector was sampled so the results may not accurately represent the sector. Most companies seemed quite financially healthy and were experiencing positive benefits from the strong local economy. Further, they generally have made adjustments and are coping with the changes to deal with company expansion that has happened over the past years. Regarding employee recruitment, the response was quite variable. Some had adequate employees due to successful use of several immigration programs; others were wanting more staff but had adapted to their current staff numbers and were taking on work in a controlled manner that aligned with their staff capabilities. The same observations regarding employee recruitment and retention were made by manufacturing companies.

The opportunity to access innovation support services was of great interest to some sectors and of limited interest to other sectors. For the companies from sectors that are generally machinery users/purchasers, like trucking and transportation, limited opportunities were identified. For companies from sectors that had more of a manufacturing component, like meat processing and water and oil filtration, there was considerable interest in innovation and technology services. Knowledge of R&D agencies that could be accessed in Saskatchewan was seen as useful.

Some examples of innovation and engineering services that were of interest included:

- a. New or foreign technology assessment
- b. Product development, design and testing
- c. Third-party certification and testing
- d. Plant design and process optimization

- e. Advisory services on the technical aspects of local and customer regulations
- f. Technical library services
- g. Financial support programs for innovation
- h. Modeling and simulation of product flow in mechanical systems

Due to all of the variable company requirements, a local economic development agency like PIER, that would be available to guide SMEs to resources to continuously improve their operations, would be very useful.