

# Enabling regional collaborations

**AFRED database gets synapses firing, leading to new business development via scientific discovery**

**F**or businesses driven by scientific discovery, intellect is vital and scientific hardware is crucial. However, the expense and technical expertise required for some scientific instruments can be restrictive and discovery-driven commerce can be impeded.

Imagine a business commons when it comes to research infrastructure. The equipment needed for research-oriented entrepreneurial efforts would not have to be within a company's four walls. Equipment and expertise available regionally could be harnessed to cost-effectively drive product development. And, collaborations that would be established would fuel new research.

This scenario is not imaginary. It exists now in Atlantic Canada, courtesy of the Atlantic Facilities and Research Equipment Database. AFRED (<https://afred.ca/>) is an open access, online, searchable database created by Science Atlantic (<https://scienceatlantic.ca/>). Launched earlier this year, AFRED is a repository of nearly 500 pieces of equipment available in various colleges, universities, government, medical, and not-for-profit facilities throughout Atlantic Canada.

"AFRED has tremendous potential to showcase specialized research infrastructure in Atlantic Canada and provide researchers with opportunities for partnerships with colleagues in academia and industry," said Dr. Christian Lacroix, Chair Elect, Science Atlantic and Biology Professor, University of Prince Edward Island.

AFRED has already made an impact on business development. "We regard AFRED as an invaluable tool to link applied research expertise that exists within our region to our industry partners who are seeking assistance in developing critical products and processes within their organizations," said Mike Long, Vice President of Applied Research and Innovation, College of the North Atlantic, St. John's, Newfoundland.

The reason for his enthusiasm lies in the successful use of AFRED by the college's Innovative Product Development Centre. The Centre uses various tools to develop prototypes, and assists companies in the early stages of prototype development and design refinement.

Recognizing the potential of AFRED, Randal Power, the Centre's research engineer, added the Centre to the database. The move resulted in a call from a frustrated entrepreneur elsewhere in Canada. R&D aimed at developing a prototype of a mission-critical piece of equipment had hit a roadblock when the skills and talents of the local research community were not suited to the project's requirements. Discussions between the entrepreneur and Power turned the untenable production concept on its ear and led to two new concepts. Small-scale production of one of the concepts was successful, with financial aid from the National Research Council-Industrial Research Assistance Program, and the



This 3D printer is just one of many pieces of equipment from across the region included in AFRED.

client now has a thumbs-up product to work with. All looks good so far for scale-up and the expectation is for full-scale production soon.

"I believe that the client would not have found our department without the use of AFRED given the physical distance between us ... I hope that the system continues to expand and with luck helps bring together the resources needed to efficiently expand access to Canada's creative and technically diverse resources," said Power.

Lois Whitehead, Science Atlantic's Executive Director is very pleased with the results to date. "AFRED epitomizes the mission of Science Atlantic, which is to make connections and facilitate relationships. We wanted to showcase the sophisticated research infrastructure Atlantic Canada has to offer and are excited that matches created through AFRED are already benefiting researchers, entrepreneurs, and institutions. We will continue expanding the database in the coming year so that more connections can be made."

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 **AFRED**  
Atlantic Facilities and Research Equipment Database

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