



PRINCE EDWARD ISLAND

BioAlliance

HR Strategy 2025

Breaking Barriers - Driving Growth





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Welcome to our HR Strategy 2025

The Prince Edward Island BioAlliance Human Resources Strategy sets the direction to ensure that the PEI bioscience cluster maintains its reputation as an outstanding location for skilled individuals to live, work and learn, enabling the growth and prosperity of the cluster's current and future bio-based businesses. This HR strategy, the fourth in the history of the bioscience cluster, is built on 16 years of experience and well-tracked key metrics allowing us to look back and see all that we have accomplished, the strong sector growth and the opportunities we must capture to keep building a robust community of talent to enable future growth.

In the PEI BioAlliance's 2021-25 bioscience cluster strategy, published in July 2021, Human Resources development was identified as a priority. Specific HR

priorities are detailed in this HR Strategy 2025.

The PEI bioscience cluster currently boasts more than 2,200 employees and a total payroll of almost \$80 million. The BioAlliance Board has set a strategic target to reach \$500 million in sales, supported by 3,000 employees, by 2025. The PEI bioscience business community and its partners are collaborating to grow strong, sustainable organizations offering rewarding careers in the Island.

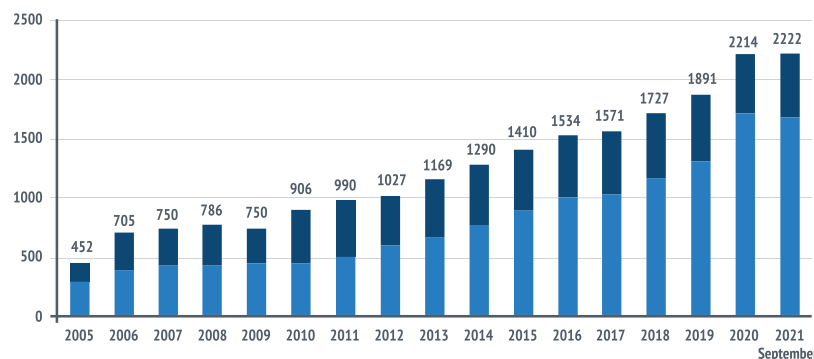
The PEI bioscience workforce contributes to strong growth in the Prince Edward Island economy. This growth does not just offer more opportunities for those who were born and grew up in PEI, but allows national and international newcomers to fulfill their dreams in the Island they now call home.

Achievements and Highlights 2016-2021

Our last HR Strategy, our third since the establishment of the PEI BioAlliance, covered 2016-2021. Achievement and highlights for this period include:

- Employment grew by just more than 800 employees since 2015, representing almost 60% growth.
- Bioscience companies, other than the three traditional largest, - BIOVECTRA, Elanco & Sekisui represented 60% of the jobs advertised within the past five years.
- Career opportunities are increasing greatly. Prior to 2018, we advertised about 100 career opportunities annually; in 2018, that number increased to more than 225, and in each 2019 and 2020, we advertised 350 roles. Half (50%) of the job opportunities over the past five years were in production roles; 20% in scientist/research, 15% in QA/QC and 15% business administration.

PEI Biocluster Employment Growth

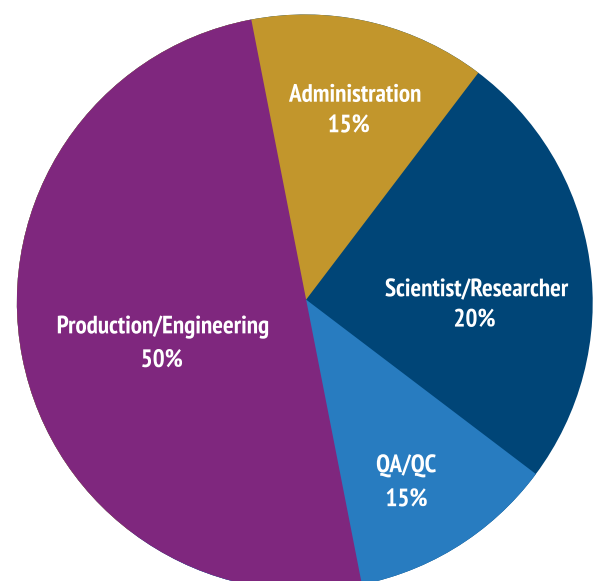


The bioscience cluster has 60 companies, up from 43 companies five years ago. At the end of 2020, six companies had more than 100 employees— BIOVECTRA, Elanco, Sekisui, Island Abbey Foods, FIGR and Auxly Charlottetown

■ Public Sector Companies ■ Public Sector Organizations

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- Typically, more than 80% of recruits come from Atlantic Canada.
- At least 65% of total traffic to the PEI BioAlliance website is HR-related, representing almost 250,000 in annual page views. We attract traffic through career news e-blasts, BioAlliance e-newsletters, social media, career fairs, media stories and collaborations.

Advertised Roles



- Our well-targeted HR audience, including mailing list subscribers and social media followers, comprises almost 5,200 contacts (up 73% since 2015). We consistently attract new contacts to our community/career news audience.
- We assisted companies new to PEI with their recruitment strategy/campaigns and introduced HR resources/ best practices.
- Two bioscience companies—BIOVECTRA and Sekisui Diagnostics—have been on the Top Atlantic Employers list for four years. In addition, Sekisui Diagnostics made the Top 100 Employers in Canada list for the past four years. In 2021, BIOVECTRA also joined that prestigious list.
- PEI BioAlliance launched the Canadian Alliance for Skills and Training in Life Sciences (CASTL), with funding from Future Skills Canada, ACOA and the Government of PEI. The initiative is focused on skilling, upskilling and reskilling talent for Canada’s bioscience sector, with particular emphasis on biopharmaceutical manufacturing.
- During the first months of the pandemic, we hosted 22 virtual huddles with operations/HR representatives from member companies to identify and collaborate on solutions to arising challenges. These huddles became valuable for both large and small companies, fostering a high level of cooperation and exchange of best practices.

PEI BioAlliance HR Mission

The Prince Edward Island BioAlliance is a collaborative and welcoming community that supports rewarding career paths; professional excellence; and equity, diversity and inclusion (EDI) values and practices to build successful bioscience companies:

- We are responsive to the challenges of individual companies and find ways to successfully support their recruitment, retention, and HR needs.
- We have an open-door approach for those seeking careers and help them access job opportunities within the community.
- We seek to establish HR best practices that support the growth of a sustainable, diverse and growing community.
- We work to build strong HR collaborations within the community of companies, sharing best practices and tackling common challenges.
- We collaborate with post-secondary institutions and community organizations to highlight bioscience career opportunities.
- We reach out to the larger community to attract well-matched, strong candidates that will thrive within the PEI bioscience community.
- We strive to pass on a strong and vibrant bioscience community, based on our Island values of perseverance, respect, and cooperation, to the next generation to build prosperity in PEI.

Critical Issues

There are critical issues impacting HR within the bioscience cluster. Companies have also identified external factors having an impact.

Local companies and prospect companies seeing access to talent as a barrier to investment

- Prospect companies are seeking talent for specialized technical/scientist roles which may not be available locally.
- Established companies are seeking a range of talent; i.e., 50% production, 20% scientist/research, 15% QA/QC and 15% business administration. It is most challenging to recruit for specialized scientist and QA/QC roles as well as the volume of production roles.
- There is competition with other sectors for financial, HR and other business support roles.

Increasing turnover rates/retention challenges

- In 2021, 325 jobs were advertised and filled but the net new jobs were fewer than 25, indicating a lower-than-normal retention rate. The quarterly HR survey found that only 28 employees who left jobs also left PEI, suggesting a high degree of local turnover.
- Evidence suggests that high turnover rates are predominantly in the production worker category.

Lack of local skills and training capacity

- Until recently, there has been limited dedicated bioscience skills and training capacity in Atlantic Canada's biomanufacturing sector.
- Lack of supervisory skills training is affecting retention rates.
- Lack of bridge training programs could prevent well educated/experienced newcomers from entering bioscience roles.

Competition for and overall supply of entry level employees

- Other sectors also have a shortage of entry level talent and are enhancing their training offerings and launching talent attraction campaigns.

Lack of awareness of PEI bioscience cluster job opportunities

- There is a wide-spread perception that most roles require science masters and PhD candidates.

Failure to adequately tap into domestic/international student groups

- Bioscience companies advertise very few student roles; fewer than 25 have been reported on quarterly surveys by a few organizations during summer months.

- More students are employed by public organizations; e.g., Atlantic Veterinary College and Agriculture and Agri-Food Canada.
- The number of wage subsidy programs has increased to encourage companies to hire students, including more that are open to international students/graduates, but there has not been enough uptake in hiring more students.

External factors presenting challenges

BioAlliance companies have identified several factors creating challenges for recruitment and retention:

- Cost of living savings, that were once a selling feature in PEI, are being eroded by increased housing prices, grocery/utility costs, and lack of available housing, either to rent or to own.
- COVID lockdowns have changed the world of work and reset priorities. More flexible work arrangements and mental health have become a stronger focus and companies must adapt to new priorities.
- Access to public transportation near work sites is limited, particularly on the outskirts of the city and in rural areas. Though there is access to public transit in the Biocommons Park in West Royalty, there is no convenient bus stop within the park and schedules do not correspond with shift start times. Some employees in rural areas have long commutes, creating unsafe conditions in bad weather, and employers are making accommodations.
- Amenities—e.g., places to have lunch and access other convenient services—are lacking near work sites.
- Access to a doctor and specialized treatments are challenging and there is a negative perception of the quality of healthcare.

HR Strategy Goals

We have established the following goals to ensure there are enough employees in the bioscience cluster to support its success and to foster future growth:

- Increase the ability for bioscience companies to have an HR focus.
- Increase local skills and training capacity.
- Increase retention and reduce staff turnover rates.
- Increase recruitment success rates including quality of applicants.
- Increase opportunities for under-represented groups.
- Increase recruitment of students to build the next generation of talent.
- Increase PEI bioscience cluster recognition as a location of choice for bioscience careers.
- Increase awareness of bioscience career opportunities with students, parents and K-12 teachers.



Priority Action Themes

BioTalent Canada's recently published Labour Market Intelligence report forecasts a serious gap in talent supply within the Canadian bio-economy. By 2022, there will be at least two job openings for every potential candidate and, by 2029, that ratio will grow to 4:1.

This strategy is organized by these priority action themes to create an outstanding local human resource ecosystem that enables bioscience business attraction, growth and development.

- Recruitment
- Retention
- Skills and training
- HR support
- Public awareness and understanding of bioscience career paths

Recruitment is our most comprehensive focus as it is critical in supporting company growth and in enabling new companies to establish a presence in Prince Edward Island.

Retention has become a growing challenge so we must build best practices to retain well-matched and vital talent needed for companies to thrive.

Skills and training are critical to human resources development, as demand for talent outpaces available and skills-ready talent. A primary focus in this section is on CASTL's strategy for upskilling, reskilling and new-skilling talent to support recruitment needs.

HR support relates to activities that build HR capacity and best practices among companies. Our community collaborates to share what works best within a bioscience company culture in PEI.

Finally, public awareness and understanding of bioscience career paths is vital as we move to a more sustainable approach to recruitment. The talent gap will continue to increase so we must be proactive to ensure that youth and the public are aware of options. We will promote CASTL's pathways to bioscience careers and collaborations with all levels of educational institutions, with a focus on new-skilling.

Activities associated with each priority, as discussed in the following sections, have evolved in response to the needs of the industry and overall trends.

Action Theme #1: Recruitment

There are more than 60 companies in the PEI bioscience community. We now advertise more than 300 jobs per year. In quarterly HR surveys, we track hires and departures from the scientific, QA/QC, production/engineering, business administration and senior management categories. Our tracking shows that typically less than 20% of new hires are from off Island. We also capture unfilled positions and a six-month projection of recruitment plans by category. Production roles typically represent around 50% of future demand, followed by scientific/research roles at around 20%, QA/QC at 15% and business administration roles at 15% (senior management making up about 2-4%).

Sector employees now number just more than 2,200 and we project, on average, 200 new positions annually to reach our goal of 3,000 by 2025. Based on our average category breakdown, each year we would need to fill 100 production roles, 40 scientific/research roles, 30 QA/QC roles and 30 business administration roles, the latter including financial, HR and senior management positions.

“ We have increasing demand for talent within specific job categories; e.g., production technicians, scientists with specialized knowledge/lab technicians, QA/QC professionals and HR/financial roles. ”

High demand for talent can provide bioscience workers with opportunities to try different jobs to gain broader experience and advance in their careers. However, we must constantly attract new candidates from outside our immediate community. We must fully embrace all streams of talent, specifically those from newcomer and international student communities,

attract youth to follow CASTL bioscience education streams and offer adult reskilling programs that provide training and work-integrated learning opportunities.

We continue to expand our networks by raising awareness of PEI bioscience companies and career paths and through targeted outreach activities. For example, we collaborate with Employment Journey to feature regular stories on actively hiring companies and the careers they offer and to show the variety of careers available within the community. We prepare introductory stories on new companies which are featured in local media, on our website, social media sites and in our monthly e-newsletter.

The PEI BioAlliance organizes regular networking events. Over the past two years, during COVID-19 restrictions, we hosted a virtual company/HR-focused bionetworking event and ramped up our social media campaigns, particularly on LinkedIn. We are looking forward to ramping up our in-person events again as they are excellent opportunities for job seekers and students to connect with employers and learn about the sector.

We participate in career fairs and our collaborators' networking events, along with our actively recruiting companies, to broaden our networks. We invite all new contacts to send us their resumes which are added to an online resume library shared with hiring managers. Most events have been virtual since Spring 2020 but there are some in-person events when restrictions allow.

Individual bioscience companies have successfully hosted their own career fairs to attract talent for production roles, specifically, and we encourage them to take advantage of these outreach opportunities.

These fairs, especially successful with the newcomer community, have attracted up to 200 interested candidates, fulfilling current needs and offering a pipeline of talent for future requirements.

Each January, we invite resumes and receive an excellent response. We must keep adding new contacts to our career news mailing list to ensure that companies receive a variety of consistently strong applicants for advertised jobs. During our HR check-ins with company representatives, we found that employers are generally pleased with the quality of candidates and feel that they have good final choices. There are always challenges with specialized roles and we offer more customized assistance by exploring

our networks. Also, there are ongoing challenges with filling the large requirement for production roles.

Bioscience companies will need to increase the number of students they hire. There are more wage subsidy programs than ever to support student and new graduate recruitment. Not long ago, Prince Edward Island unfortunately exported too much of its talent and perceptions can be difficult to shake. We must increase student recruitment by showing them the good careers we are creating here in PEI. At the high school level, for example, co-op programs attract interest in exploring bioscience careers. We need to invest in this young human capital to support the future sustainability of bioscience companies in PEI.

Accessing specialized/skilled labour is critical to the growth of bioscience companies and is, therefore, an intense focus of this HR Strategy and our activities. We further define this priority area to encompass the following types of activities in the following subsections:

- Expand networks to maximize access to skilled talent, including under-represented groups.
- Raise profile of bioscience companies to attract talent.
- Attract good quality/well-matched talent to PEI bioscience community.
- Build collaborations with secondary/post-secondary institutions to secure a strong future workforce.
- Reduce barriers to recruiting specialized international candidates.
- Maximize engagement in programs supporting recruitment.

Expand networks customized to upcoming talent needs and higher volume of opportunities

- Encourage companies to create formalized HR recruitment/talent pipeline strategies that define their company culture and goals to build a well-matched talent pipeline aligned to their values. We will collaborate with them to build awareness among our networks and identify job seekers that are well-matched to their talent needs. These pipelines should commit to hiring a set number of students every year by taking advantage of the increased number of wage subsidy programs. A more strategic company HR recruitment strategy can help offset local talent churn.
- Work with companies to identify needs as early as possible so we can build customized talent networks that are well-matched to their needs.
- Offer ways for job seekers to connect with us to learn more about opportunities, including our “5 ways to connect to a job in bioscience” which highlights best practices.
- Continue an annual campaign of inviting resumes to replenish our online resume library that is shared with senior hiring executives within bioscience companies. Resumes received throughout the year are also added to the library.
- Promote Work PEI and BioTalent Canada sites to employers as complementary tools to promote opportunities to a broader audience.

Raise profile of bioscience companies to attract talent

- Include “top employer” logos in career news e-blasts for designated companies to boost talent attraction and encourage other companies to strive for designations.
- Organize HR-focused events and promotions to raise awareness of companies and career opportunities.
- Share company news through our promotion channels and to local, regional, and national publications.
- Share company-specific job postings through direct mail and social media.
- Create a communications campaign to support a strong brand and message about the growth and vision of the bioscience sector in PEI.

Attract top talent to work in PEI bioscience community

- Promote the results of our latest Economic Impact Assessment to show the strength of the bioscience sector and the high-quality, good-salaried jobs being created in PEI and to showcase our commitment to growth.
- Highlight the variety and volume of careers in PEI’s bioscience community.
- Welcome top talent that would like to return home to PEI and connect them to our opportunities and company contacts.
- Tap into our networks to secure employment for spouses of professionals who move to PEI for bioscience jobs.



- Build networks to ensure there are no under-represented groups that we could be tapping into for talent; e.g., many newcomers are well educated, have excellent work experience and are highly flexible and motivated to create a life in PEI. We need to find ways to welcome them into our companies.
- Carry out a compensation survey in regions where we compete for talent to ensure that our companies remain competitive in attracting top candidates. Employees are now faced with higher living costs so salaries will have to accommodate them.
- Lead initiatives outlined in retention section to attract top talent.

Build collaborations with secondary and post-secondary institutions to secure a strong future workforce

- Promote CASTL post-secondary bioscience-focused streams at UPEI, Acadia and Université de Moncton.
- Connect recruiting employers with post-secondary career offices.
- Collaborate with organizations that are working to retain international student graduates in Prince Edward Island.
- Build relationships with the increasing number of BioTalent Canada's national academic partners.
- Participate in annual Holland College Advisory Committee meetings and promote their on-the-job training (OJT) programs to employers.
- Raise awareness of bioscience careers through post-secondary collaborations.

Reduce barriers to recruiting specialized international candidates

- Collaborate with the PEI Office of Immigration to ensure the recruitment of foreign professionals with specialized skills is as seamless as possible for our bioscience companies.
- Collaborate with Members of Parliament to promote federal-provincial partnerships for immigration and promote the Atlantic Immigration Program.
- Encourage companies to attend information sessions offered by immigration professionals.
- Stay current on immigration pathways to assist companies on navigating the process and collaborate with provincial immigration professionals

Maximize engagement in recruitment programs

- Ensure employers/hiring managers are aware of current programs supporting recruitment. Introduce new-to-sector companies to these programs. Emphasize funding programs that are now available to employers to hire international students/graduates/newcomers.
- Collaborate with Skills PEI and BioTalent Canada and other organizations to ensure companies are maximizing use of their wage-subsidy programs.

- Invite companies to sessions that highlight programs supporting recruitment and invite funders to connect with bioscience businesses at bionetworking events.
- Assist companies with any specific challenges around accessing programs that support recruitment.
- Identify gaps in funding that supports recruitment and offer feedback to funding organizations to encourage valuable program development.

Build a strong workforce that will drive business growth and enjoy professionally rewarding careers

- Highlight the variety of careers, at all educational levels, available in the bioscience community.
- Highlight the strong collaborative community that is ready to assist in recruiting and developing talent
- Highlight company news, key new hires and strong growth in PEI bioscience community.
- Share current bioscience cluster employment data through our communications and marketing channels.
- Continue to expand our Bioscience Outreach Team which is made up of individuals within the community who volunteer to mentor those considering careers.

Recruitment Strategy - Expected Outcomes

- Companies establishing their own HR strategies/talent pipelines and measuring their success in attracting talent from broader regional areas
- Successfully attracting/recruiting 200 quality candidates annually for the following roles: production and engineering (100), scientific/lab technician (40), QA/QC (30) and business administration (including financial, HR and senior management) (30).
- More international graduates and newcomers within PEI finding employment in the bioscience community.
- Repatriation of Islanders securing jobs in PEI's bioscience sector.
- Current resume library that employers can access to match talent with opportunities.
- Good connections with post-secondary institutions and related OJT/co-op programs.
- Bioscience company participation in career fairs.
- Company-hosted career fairs.
- "Top employers" logo featured in related company job ads and more companies pursuing designations.
- HR-focused events that attract job seekers and students.
- Increased awareness of bioscience opportunities and variety of roles.
- High interest in Holland College's Bioscience Technology Program.
- High-calibre high school graduates moving into CASTL's new-skilling post-secondary educational streams.
- Strong candidates graduating from CASTL's reskilling programs who find good opportunities within bioscience companies.
- High engagement in wage-subsidy programs that support recruitment.
- Growing audiences and increased engagement on social media channels.
- High interest in joining our career news mailing list.

Action Theme #2: Retention

We are experiencing a growing challenge in retention; however, though our quarterly surveys show that very few of those who voluntarily left their companies left PEI. When we were developing our last HR Strategy, retention within the bioscience cluster was strong. The cluster has since experienced high growth which has opened more opportunities to move around.

We took a deeper dive into the issue of retention to determine the specific challenges that our member companies are experiencing, to gather detailed insight into the source of these retention issues and identify what might be done to address them. The research, which included one-on-one interviews with hiring managers/HR managers of the most actively hiring companies, identified these top retention challenges:

- **Shift work in production roles**
Turnover is highest in production areas, and shift work is a major contributing factor, particularly in those organizations requiring overnight shifts. Production roles represent at least 50% of total jobs advertised in the sector.
- **Lack of defined career paths**
Organizations struggle with providing defined career paths, particularly for entry level roles, that have the highest turnover and therefore require planning.
- **Recruitment and selection practices**
Most of the organizations do not have a written recruitment philosophy or process. In general, HR professionals are of the view that a substantial amount of turnover is often due to mis-hiring and the lack of a realistic job preview or clear expectations during the hiring process. In addition, exit interviews are not being used by some organizations.
- **Lack of manager training**
Most of the organizations do not provide formal manager training, either for new or existing managers. It is widely understood that employees often quit their manager, not their job. Organizations who do not invest in training managers are missing an opportunity to develop future leaders, impacting both the managed and the manager.

Actions

- Establish an HR Excellence Initiative within the sector focused on advancing HR best practices, support and training which could also serve as an attraction tool for top HR talent.
- Develop an HR Essentials package that could be customized for individual companies. This package would provide a strong foundation of documents, policies and best practices and encompass HR-focused initiatives; i.e., recruitment and selection, compensation, performance management, employee relations and communication, and training and development. Ultimately, it would offer a competitive edge in attracting and retaining talent to the PEI bioscience sector and would ensure companies are off to a strong, sophisticated start as they build their teams.

- Collaborate with HR professionals with strong experience in the latest practices to support implementation of the HR Essentials package and contribute to the HR Excellence Initiative as subject-matter experts.
- Carry out a compensation survey for the bioscience sector in Atlantic Canada and other bio-centric areas where we compete for talent; e.g., Montreal, Toronto and Boston.
- Create a HR communications strategy featuring an engaging bioscience sector brand and market it aggressively to attract well-matched talent to support retention.
- Identify good sources for supervisor training to ensure companies are building healthy and productive work cultures.
- Encourage companies to conduct employee satisfaction surveys and exit interviews.
- Promote the federal and provincial initiatives focused on embracing diversity within companies. Encourage companies to promote their social responsibility programs and other initiatives that resonate with employees. Encourage larger companies (particularly designated “top employers”) to share their HR best practices to attract diverse talent.
- Commit to building a strong workforce that will drive business growth and enjoy professionally rewarding careers.





Retention Strategy – Expected Outcomes

- Strong commitment to HR excellence within the PEI bioscience sector with expertise and resources adopted by companies to support strong work teams.
- Companies identifying and tackling specific retention issues to curb turnover.
- Hiring managers being clear of the type of talent they are seeking and making sound hiring decisions to ensure they are making the best possible matches.
- Job seekers having a clear understanding of the companies, their values and work cultures so they can pursue the best possible matches.
- Strong supervisors/people managers that support healthy work cultures, retention and succession planning.
- A bioscience workforce that enjoys rewarding careers, a clear view of their career paths and competitive compensation and benefits.
- More companies striving for workplace designations as they move toward excellence.
- Current labour market data to ensure we are aware of trends and remain competitive in attracting and retaining talent.
- Regular tracking of cluster retention and addressing any identified challenges.

There is limited HR capacity within most bioscience companies. Currently, out of 60 companies, six companies employ 19 HR professionals. A few others contract recruiters and HR specialists as needed. There are 6-10 new jobs advertised in any given week; companies with in-house HR professionals recruit the highest volumes.

Action Theme #3: HR Support

Limited HR capacity

Customized recruitment support is offered to smaller companies. Growing competition for talent requires increased sophistication in HR recruitment and retention strategies. We offer company-focused job e-blasts to help build company HR brands.

The companies with in-house HR expertise require one-to-one assistance for specific HR challenges as they move into higher-volume recruitment campaigns. These working relationships involve ongoing collaboration and strategizing to meet future needs. A few of these companies host their own career fairs and they value our well-targeted career news mailing lists to attract interest.

Many of mid-pack companies, the largest group, have been building their management capacity including, for some, an HR manager. Otherwise, HR responsibilities are covered by an operations/administrative employee or HR consultant. We build solid working relationships with these managers to identify challenges and support them in their recruitment activities.

The smaller companies with one to five employees are, in some cases, newer to PEI and need a broader orientation to our HR landscape and resources. They require key people with specialized skills who are not necessarily readily available, so it takes more effort to recruit this talent. We help match the best available candidates. We review our resume library and tap into our broad professional networks to source talent.

The Governments of Canada and PEI, BioTalent Canada, Immigrant and Refugee Services Association of PEI and the Greater Charlottetown Area Chamber of Commerce are among those who promote workplace best practices in equity, diversity and inclusion. The companies are embracing these practices to gain a competitive edge in recruitment and to build healthy work cultures that are reflective of our PEI/Canadian population.

Retention is vital to company growth; with more competition for talent, we receive more enquiries on salary/benefits data. Through the pandemic, compensation/benefit packages have become more attractive as companies, in general, struggle with retention. We will need to access and gather the latest data so PEI bioscience companies can remain competitive.

“ As the labour market becomes increasingly competitive, it will be critical to hire and retain well-matched talent. ”

Our HR Excellence Initiative and foundational HR Essentials package will offer valuable support to organizations, specifically those with no internal HR expertise and who are in the early stages of their growth where every hire is critical.

Actions

- Lead initiatives outlined in the retention section to grow HR sophistication in bioscience sector e.g., HR Excellence Initiative, HR Essentials package and compensation research.
- Gather employment data from quarterly HR surveys to customize our efforts to support bioscience companies.



- Maintain a regular/open-door invitation for company consultations and conduct a formal annual comprehensive HR check-in with each bioscience company to ensure we are aware of challenges early on.
- Offer orientation to new HR managers and other managers responsible for HR to ensure they are fully aware of BioAlliance HR resources/services to support their growth plans.
- Consult with new companies looking to establish in PEI.
- Promote HR best practices and encourage HR professional development.
- Host HR working group sessions to address arising challenges.
- Identify HR specialists that companies can access for their specific needs.
- Participate at the national level—e.g., BioTalent Canada—to offer input in HR discussions, gather best practices and tap into initiatives that will benefit our local bioscience community.

HR Support Strategy - Expected Outcomes

- Companies committed to HR excellence and adapting HR essentials to build strong teams and growing sophistication in HR best practices.
- Companies accessing HR specialists who can assist them in implementing best practices.
- Quarterly survey results that inform the successful progression of our HR strategy.
- New-to-PEI companies integrated well into the community.
- More bioscience companies embracing EDI policies.
- Bioscience companies collaborating on common challenges and solutions.
- Companies being recognized for the quality of their HR practices and workplace cultures and securing spots on “Top Employer” lists.
- Influencing provincial and national government agendas around workforce development and maximizing resources that benefit bioscience companies and the cluster as a whole.

Action Theme #4: Skills Development and Training

We must meet the challenge of a growing demand for talent among our 60 companies. In 2019, as established companies along with new-to-the-scene cannabis companies had a sharp increase in the need for talent, we realized we were exhausting the available supply. We continued to ramp up our talent networks but we ran into another challenge. Many recruits, particularly new graduates, lacked the needed knowledge to function efficiently in their role, so companies had to undertake the major task of ramping up training. Properly training staff takes time, particularly in production roles where large numbers must work well within highly regulated environments.

We began to evaluate options to build sustainable talent given the expected growth trajectory. We entered a “perfect storm” of success, as start-up companies were beginning production and cannabis companies were establishing, mid-size companies were gaining more customers and large companies were expanding/pivoting to effectively compete in highly competitive, international markets.

For a solution, we looked to Ireland, which tackled a similar labour challenge to develop bioprocessing talent for pharmaceutical companies. The National Institute of Bioprocessing Research and Training (NIBRT), arising from a unique partnership between Ireland’s biopharmaceutical manufacturing sector, academia and the Irish government, is today a global centre of excellence for training and research. We adopted aspects of NIBRT’s training model and further expanded it into other areas of training to match the needs of our local market. To make our plans fully sustainable in the long haul, we established a Canadian training initiative that would ultimately give us broader talent reach.

In 2020, we launched the Canadian Alliance for

Skills and Training in Life Sciences (CASTL), building collaborations with bioscience companies, three Atlantic Canadian universities (UPEI, Acadia University and Université de Moncton) and Holland College. Training is focused on new skilling (streaming post-secondary students through academic/technical/work-integrated learning programs customized to bioscience careers), upskilling (specialized training to enhance knowledge and skills through Holland College Bioscience Technology Program, NIBRT and BioTalent Canada) and reskilling (training opportunities for displaced/unemployed talent to build skills and knowledge through Holland College, NIBRT and other identified programs).

In March 2022, CASTL announced that it will establish a biopharma manufacturing training facility in Charlottetown. They will provide individuals with industry-simulated hands-on training experiences, helping them to develop and grow in their careers.

Training is a retention tool as well as a recruitment tool. Companies tell us that younger employees expect advanced training. Succession planning will be key, too, as senior managers wind down and retire and successive generations step up.

The Holland College Bioscience Technology Program, which has proven vital for PEI bioscience companies, has expanded enrollment to meet increased demand.

Currently, around 50% of the jobs advertised are production-related, so reskilling talent to fill that need is a CASTL priority. We identify job seekers that could benefit from a reskilling program and gain a competitive advantage to secure employment. Then we set up OJT placements to offer them practical experience and potential employment opportunities.

Bioprocessing manufacturing training is a priority for CASTL and led to our decision to become an exclusive global provider of NIBRT licensed training programs in Canada to support talent development and company growth. Most recently, CASTL entered a partnership with adMare BioInnovations to facilitate the development, delivery, and growth of CASTL's training programs across the country. The CASTL business plan sets out how we will build talent to grow our bioscience companies, and we will promote in-person and online NIBRT courses to companies and help to recruit participants.

Leadership/management skills, business development/sales, operations, human resources and project management training are also required. Some

founders lack business development and executive skills. They may not yet be able to hire executives but success in these skill areas builds strong companies and leads to talent attraction and good retention further to financial stability. Some of these companies are part of the Emergence Bioscience Business Incubator so they benefit from mentoring, business strategy and advisory services; specialist services and access to networks and resources through the Emergence Performance Network.

The need for talent with strong professional skills has almost reached a crisis point in line with a broader geographic challenge. Where possible, essential skills training is incorporated into training initiatives.

Actions

- Execute CASTL's Atlantic Canada business plan
 - Up-skilling – promote NIBRT online courses to companies.
 - Re-skilling – assist in recruiting candidates to enter these programs that are focused on filling the substantial need for production talent.
 - New-skilling – promote bioscience educational pathways.
- Access provincial and national labour market data and programs that benefit bioscience companies; e.g., BioTalent Canada's recently published LMI national and regional reports, are updating/adding National Occupational Standards (NOS) to reflect the bioeconomy and are identifying talent/training gaps. Identify and organize training to strengthen retention.
- Promote funding programs that support training.

Skills Development and Training Strategy – Expected Outcomes

- Meeting recruitment targets for CASTL training programs.
- CASTL research insights on industry skills and training gaps to foster upskilling and reskilling outcomes/success.
- Interest and growth in CASTL skilling/reskilling/upskilling programs as a vital recruitment/training partner to bioscience companies.
- Candidates completing training programs and securing full-time employment and advanced opportunities.
- Well-trained executive/management capacity within companies to support corporate growth, healthy work cultures, job creation and retention.

Action Theme #5: Public awareness and understanding of bioscience career paths

Youth, newcomers, and other professionals in PEI are becoming increasingly aware of bioscience career paths as they see a sharp increase in the number of advertised jobs and read our bioscience cluster/company success stories. They are also aware of friends and family members securing good jobs within bioscience companies. Bioscience companies are offering solid careers with good salaries and benefits.

Significant milestones include the recent launch of CASTL to accelerate talent attraction through bioscience educational pathways and training programs. Our new Bioscience Manufacturing Incubator in the BioCommons Research Park is open and already fully leased. We have launched our new Bioscience Cluster Strategic Plan and our company

revenue metrics data is showing strong growth.

On a broader scale, as the COVID-19 pandemic progressed, the average citizen became acutely more aware of the public health and bioscience sectors, particularly in vaccine development. Our bioscience companies continued to operate as essential services with some directly contributing to innovations during this time. People could see first-hand that science innovations can have a direct impact on public health. BIOVECTRA's recent announcement that they will be building a facility to produce mRNA vaccines raises our community's profile even further. For those that wish to contribute to future health, it has been an extraordinary time for young people to consider careers that turn innovation into making a difference.

Actions

- Identify and create bioscience cluster and company stories to attract people to bioscience careers. Highlight stories of people working in various bioscience careers.
- Take advantage of outreach opportunities to high schools, post-secondary institutions and community/newcomer groups.
- Promote CASTL-STEAM PEI Partnership programs introducing K-12 youth to bioscience activities/careers.
- Find ways to expand our BioFutures Program to give youth first-hand experiences on the types of careers available in the bioscience sector.
- Continue building our Bioscience Outreach Team with people in the sector who are willing to participate in outreach activities to highlight career paths.
- Welcome those interested in bioscience careers to attend our bionetworking events.
- Build our social media presence highlighting career paths and current opportunities.

Public Awareness and Understanding of Bioscience Career Paths Strategy - Expected Outcomes:

- Presentation opportunities to highlight bioscience career opportunities.
- Companies hosting school/youth tours and offering a chance for hands-on learning.
- Increasing youth interest in bioscience career paths and CASTL-STEAM programs, the Holland College Bioscience Technology Program and CASTL academic streams.
- Increasing interest by those wishing to pursue bioscience careers.
- High interest at our outreach events.

As the Prince Edward Island bioscience cluster continues to grow, it will be critical that we work together as a community to build and attract current talent and future generations to bioscience career opportunities.



Appendix A: PEI HR Strategy Partners

Companies

- AddiCan
- Advanced Extraction
- Amar Seafood PEI
- Auxly Charlottetown
- Technologies
- Affinity Immuno
- Alpha Cognition
- AquaBounty Canada
- Ark Bio-Medical Canada
- Atlantech Companies
- Atlantic AgriTech
- Au Naturel Solutions
- Avivagen
- Bactana
- Bait Masters
- Because Animals
- BioSpa
- BioTraceIT
- BIOVECTRA
- BLES Biochemical
- Center for Aquaculture
- Technologies
- Chinova Bioworks
- CNS Contract Research Corp (CNS/CRO)
- Direct Nutrisciences
- DME International
- Elanco
- EVAH
- Eversea
- Fieldetect
- FIGR
- GRW Laboratories
- Handyman Labs
- Harvest One
- Hurnik Group
- HZPC
- Island Abbey Foods
- Island Water Technologies
- Microsintesis
- Natures Crops International
- Nautilus Biosciences Croda
- North Atlantic Organics
- Nutracelle
- Origins Extraction
- Pegasus Biotech
- PEI Potato Quality Institute
- Point Prim Permaculture
- Precise AI
- Red Earth Cannabis
- Remidose Aerosols
- RPS Biologiques
- Sekisui Diagnostics
- Sevita International
- Simini
- Somru Bioscience
- Stepscan
- TerraVerdae
- Timeless Technologies
- VetNow
- Virotechnologies

Research Partners

- National Research Council
- University of Prince Edward Island
- Atlantic Veterinary College
- Holland College/Canada's Smartest Kitchen
- Agriculture & Agri-Food Canada
- Bio Food Tech

Government Partners

- ACOA
- Skills PEI

Other Key Partners

- BioTalent Canada
- Canadian Alliance for Skills and Training in Life Sciences (CASTL)

