

Is job growth possible in these tough economic times?

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by Colette Rivet

Executive Director of BioTalent Canada

Demand for biofuels products and services is expected to climb to 80 per cent nationally and 83 per cent globally over the next three to five years, according to a report issued by BioTalent Canada. Hand-in-hand with this demand will be jobs.

The Generating opportunity: Human resources needs in the bioenergy, biofuels and industrial biotechnology subsector report examined the views of those working in the subsectors to identify possibilities for the future, and to determine the human resources requirements for successful growth. The results were promising.

Then and now

In the 1970s, bioenergy innovation was driven almost entirely by financial incentives. It was an area of exploration without a market to receive its discoveries. That's no longer the case. Today's public is environmentally conscious. Governments are starting the transition to

sustainable, low-carbon economies. Legislation in many jurisdictions now mandates the use of bioenergy to reduce greenhouse gas emissions—creating a guaranteed market for bioenergy solutions.

The economic urgency to develop alternative energy options has become almost as compelling as the environmental ones. For businesses, energy savings translate into dollar savings that are critical to competition. For individuals, lower energy costs mean more money for other things.

On track: Growth and innovation

As a result of this increasing demand—and by virtue of decades of growth and development—the bioenergy, biofuels and industrial subsectors are stronger and more self-sufficient than ever before. Their networks and expertise are beginning to match those of traditional energy players. Companies are at various stages of development, which suggests the collection of subsectors is transitioning from early stage research and development-heavy activities to later-stage production, manufacturing and commercialization.

Biofuels technology is developing rapidly, accompanied by increasingly greater economies of scale and lower costs. As western countries like Canada pursue energy security as a priority, homegrown bioenergy alternatives seem far more appealing than oil reserves in regions that are vulnerable to political and social unrest.

Canada has already earned a reputation for leadership in various biotechnology-related subsectors. The biofuels, bioenergy and industrial biotechnology subsectors in this country are on a track of innovation that is sure to continue, although they face a challenge that competitors elsewhere do not—namely, a lack of investment capital. While this shortcoming must be addressed, it does not change the fact that biotechnology will remain central to the Canadian economy, partly due to the country's wealth of natural resources.

What's driving the growth in bioenergy, biofuels and industrial biotechnology? BioTalent Canada asked stakeholders to rank the most significant influences on their subsectors over the next three to five years. From greatest to least, they indicated:





1. Energy prices (90%)
2. Technology advancements (73.3%)
3. Regulatory environment (66.7%)
4. Ability to attract qualified talent (33.3%)
5. Public perception (30%)

The talent gap

The inclusion of public perception in this list is interesting. With greater public awareness of the subsectors, more students are likely to make educational choices that will prepare them for work in these and other biotechnology fields. In other words, public perception will help drive young people toward biotechnology careers, building up the country's skilled, qualified talent base.

The biofuels industry will be looking for job-ready talent with transferable skills. Sixty-three per cent of organizations surveyed reported having unfilled positions requiring industry-specific skills. However, companies surveyed also identified gaps in roles that are applicable across all sectors, including general management, administration, marketing, and manufacturing. This means that Canadians who've lost their manufacturing jobs can look to the biofuels and bioenergy sector as a real option.

Because the companies surveyed are small—almost half reported fewer than 10 employees—they typically focus on delivering just one product or service. This makes their operations highly specialized and usually restricts their activities to a single market area. Within such firms, one person may be responsible for a number of different functions, and competing time pressures often push HR activities to the back burner. Small companies in particular tend to dedicate most of their resources to activities that directly generate revenue, and HR management seldom falls into that category. It is not that these firms fail to recognize the importance of HR capacity development; they simply do not have the expertise or resources to do so. They need support to address that part of their business—for example, through access to simple, easy-to-use resources that alleviate time and cost pressures.

Helping meet demand

Meeting this demand—especially in cases where companies are already at or beyond their capacity to deliver—requires capital, infrastructure and, perhaps most critically, capable, qualified, experienced talent.

To support the Canadian biotechnology industry's current and future HR needs, BioTalent Canada has created a compendium of specialized tools. The tools include a wage subsidy program, labour market information reports, BioTalent HR Tool Kit and the The PetriDish™ job bank. These easy-to-use tools are available, most at no charge, at www.biotalent.ca.

- Career Focus: Employers, especially small organizations, can receive wage subsidies up to \$10,634 to cultivate talent within their company.
- BioTalent HR Tool Kit: Easy-to-use kit includes practical HR guidelines, templates, policies and procedures that can be tailored to an organization's individual requirements.
- The PetriDish: Online job bank and free job posting service for both employers and job seekers in the Canadian biotechnology industry.
- Bio-economy Skills Profiles: Specific to key roles in the biotechnology sector. Currently under development is the Biofuels Plant Manager Skills Profile.
- BioSkills Recognition Program Pilot - This program will pre-screen entrants into the bio-economy to make recruiting easier through the BioSkills Match.
- BioTalent HR Pulse: An eNewsletter that keeps a finger on the HR pulse of Canada's bio-economy.
- Labour Market Information: Including a bio-economy cluster map, a bio-economy eco-system map and several labour market reports
- Courses to advance talent in organizations, compensation survey and access to group benefits

The full report is available on the BioTalent Canada website: www.biotalent.ca/reports

About Colette Rivet

Colette Rivet is the Executive Director of BioTalent Canada, a non-profit, industry-led national organization focused on assisting companies in the Canadian bio-economy, with their human resource and skills

development issues. She has scientific, management and human resource expertise while also having worked in the biotechnology sector.

