



BUILDING ALBERTA'S BIOINDUSTRIAL TALENT POOL ENGAGING INDUSTRY TO DEVELOP THE IDEAL WORKFORCE

About the Event.

Join us from September 30 – October 2, 2012 at the Rimrock Resort in Banff, Alberta for a strategic Biorefining Conversions Network to discuss how to develop a skilled bioindustrial workforce based on industry needs. The main objective of this workshop will be to initiate discussions around what programs need to be created to enable training of highly qualified people and skilled labour to ensure that there is adequate support the emerging bioeconomy.

Venue: Rimrock Resort
Banff, AB, Canada

Schedule: Sunday September 30, 2012
7.00 pm – 9.00 pm - Opening Reception & Registration

Monday October 1, 2012
8.30 am – 5.00 pm

Tuesday October 2, 2012
8.45 am – 4.30 pm

Registration: Please register at www.bcn.ualberta.ca

Purpose.

Access to a skilled and flexible workforce is a strategic competitive advantage for any industry but in emerging sectors that are globally competitive, such as the bioindustry, it can be a deciding factor in investment decisions. Alberta has demonstrated that it can implement forward-looking educational and training programs to support industry, the most notable example being the implementation of a pan-Albertan network of training and educational programs to support the conventional energy sector. Universities, Colleges, and technical schools across the province provide training in engineering, trades, business, entrepreneurship and the environment, all of which help support various facets of this thriving sector, which in turn provides a substantial amount of wealth to the province. Alberta is well positioned to be a leader in the bioeconomy but to be competitive, sustainable and attractive for investors, it is essential that industry has access to a highly skilled and versatile workforce. Given the time it takes to develop and implement robust and complimentary training programs, discussions around how to build a strong bioindustrial workforce must begin now so that the availability of talent aligns with bioindustrial ramp-up and expansion. In order to create the right programs, it is important to engage industry and get feedback on where the sector is heading and the types of skilled workers and professionals needed to support the sector. This workshop will bring together industry, academics and government to discuss these topics and develop a path forward for program development and workforce creation. The event will include plenary sessions that examine the current industry landscape, the projected bioeconomy workforce and existing bioindustrial programs. These sessions will provide background information for interactive breakout sessions which will focus on identifying and defining skill-sets needed

in the bioindustry, assessing whether or not there are alignments with current programs and what other types of programs (i.e. internships) would be useful for industry.

Outcomes.

The outcomes of this event will include a white paper that addresses the following questions:

- What are the core competencies and skills that industry is looking for in HQP and skilled labour in the emerging bioeconomy?
- What are examples of bioindustrial career paths? What ideal job descriptions look like?
- Is there a current or forecasted local demand for a bioeconomy workforce?
- What does the bioindustrial landscape look like in regards to workforce in other jurisdictions? What is it projected to look like?
- What institutions have programs dedicated to training HQP in the bioindustrial space? Have they been successful?
- What are the short and long term forecasts for both education and industry requirements?
- Can we learn from existing examples of programming in this space?
- What are the steps and timelines around implementing new programming? Do these align with industry?
- Is there any alignment between bioindustrial skills required by industry and the current system?
- What are the best paths forward?

About the BCN.

The Biorefining Conversions Network was established in 2009 as a pan-Albertan research and development network mandated to work with industry partners to define opportunities in the bioindustrial space and connect them with researchers and other stakeholders (i.e. government, funding agencies) to facilitate solutions-oriented R&D collaborations. The overarching goal of the BCN is to create a critical mass of bioindustrial R&D capacity in the province to support the growth of the industry by leveraging the provinces competitive advantages including a strong economy, a highly-skilled and technical labour force, extensive pipeline and distribution infrastructure, world-class research centers, and an abundance of natural resources, biomass and water.

With a heavy focus on industry relevant research, the BCN does not function like a traditional research network and is not a funding agency. The BCN works actively to develop trust relationships with partners and strategically identifies and builds targeted research programs. To accomplish this, the BCN has resources for business development, hosting, events, workshops and networking.

Initially funded by the former Ministry of Advanced Education & Technology (now Enterprise and Advanced Education), the BCN moved into the Alberta Innovates Bio Solutions portfolio when the Innovates Corporations were established. The first investment into the BCN was \$3 million over 3 years to fund network management, business development and administration (Core Functions) as well as research projects. The BCN project portfolio included 17 projects spanning 4 major themes including Chemical Conversions, Biological Conversions, Thermal Conversions and Biomass Pre-processing. In all of these themes there was a direct focus on biorefining or maximizing the value of the feedstock by utilizing all feedstock components to produce a wide range of biofuels, biochemicals, and biomaterials. The BCN is feedstock agnostic and has investigated conversion of a variety of different forestry and agricultural feed as well as value-addition to industrial co-products. Please visit www.bcn.ualberta.ca for more information.

Time	Day 1	Day 2
<p>AM Plenary Sessions</p>	<p>Bioindustrial Skills & Competencies: What is industry looking for?</p> <p>Industry Presentations & Panel Companies in the bioindustrial space will give presentations and then participate in a discussion panel. The following issues will be addressed:</p> <ul style="list-style-type: none"> • What skills and competencies are needed for a skilled bioindustrial workforce? • Where is the industry headed? • Can this sector be competitive in terms of attracting the best people? <p>The Alberta Industrial Landscape</p> <ul style="list-style-type: none"> • What does the current and projected bioindustry look like in Alberta? • Are there any key trends emerging in the developing bioeconomy that would help shape the type of workforce needed to support the sector? 	<p>Bioindustrial Programming: Examining Current Programs</p> <p>This session will provide background information for the afternoon breakout sessions and will focus on looking at programming needed to develop HQP and skilled labor. The following topics will be addressed in this session:</p> <ul style="list-style-type: none"> • Environmental Scan <ul style="list-style-type: none"> -What are the current programs in existence? • Program Development: Steps & Timelines <ul style="list-style-type: none"> -How long does it take to realistically implement new programs • Examples of Existing Bioindustrial Programming • Learnings from Past Programming initiatives
	<p>PM Breakout Sessions</p>	<p>Bioindustrial Skills & Competencies: Defining the training paths needed to develop the workforce</p> <p>Breakout Sessions The group will be broken into the following facilitated working groups:</p> <ol style="list-style-type: none"> 1. Technical Programming 2. Science-based Programming 3. Engineering-based Programming <p>The purpose of these sessions will be to identify, define and rank core competencies and skills that are needed to develop a workforce in alignment with industry needs in each of the programming areas. These skills and competencies will be used to define ideal candidates and potential training pathways. The outcomes of these sessions will be used in Day 2 for discussions around programming.</p> <p>Breakout Wrap-Up All participants will reconvene to summarize and highlight key findings from each group.</p>



Sunday September 30, 2012		
5.00pm - 9.00pm	Registration	
7.00pm - 9.00pm	Opening Reception	
Monday October 1, 2012		
7.30am - 11.00am	Registration	
7.30am - 8.30am	Breakfast	
8.30am - 9.00am	Welcome & Opening Remarks	
	Plenary Session 1: Bioindustrial Skills & Competencies: What is industry looking for?	
	Industry Presentations	9.00am - 10.20am
	Trevor Nickel - Growing Power Hairy Hills & Highmark	
	Archer Daniels Midland (Speaker TBD)	
9.00am - 12.15pm	Mascoma (Speaker TBD)	
	Energy Break	10.20am - 10.50am
	Industry Panel & Discussion	10.50am - 11.30am
	The Alberta Industrial Landscape: Present & Future Opportunities	11.30am - 12.15pm
	Jeremy Heigh – Sift Everything	
12.15pm – 2.00pm	Lunch	
	Breakout Sessions 1- Bioindustrial Skills & Competencies: What is industry looking for?	
2.00pm – 5.00pm	Working Groups	2.00 pm - 3.45 pm
	Energy Break	3.45 pm - 4.15 pm
	Group Presentations & Summary	4.15 pm – 5.00 pm
5.00pm - 6.00pm	Reception	
Tuesday October 2, 2012		
7.30am – 8.30am	Breakfast	
	Plenary Session 2 – Aligning Bioindustrial Programming with Industry Need	
	Overview of Bioindustrial Programs and New Programs	8.45am – 9.30am
	Jim Bohun – University of Alberta	
	A Look at Existing Bioindustrial Program Requirements	9.30am – 10.30am
8.45am – 11.30am	Dr. Jim Sandercock – Northern Alberta Institute of Technology (NAIT)	
	Dr. Manfred Kircher – Cluster Industrielle Biotechnologie (CLIB2021)	
	Energy Break	10.30am – 11.00am
	Update on the BioAlberta Policy Committee’s Human Capital Assessment	11.00am – 11.30am
	Ray Bergstra – MTN Consulting Associates	
11.30am - 1.00pm	Lunch	
	Breakout Sessions 2 - Aligning Bioindustrial Programming with Industry Need	
1.00pm - 4.15 pm	Working Groups	1.00pm – 3.00pm
	Energy Break	3.00pm - 3.30pm
	Group Presentations & Summary	3.30 pm - 4.15pm
4.15pm - 4.30pm	Closing Remarks	