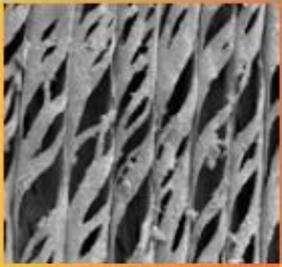


Financing the BioEconomy

ABDC Seminar Series February 8th/2011

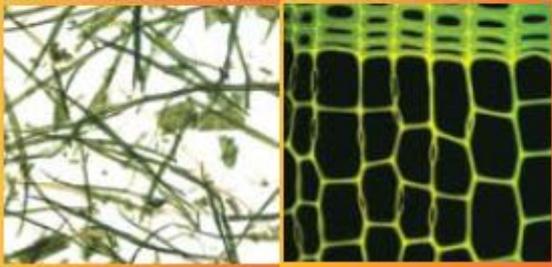
Richard Gibson

Co-Lead of the Alberta BioMaterials Development Centre
and AITF Business Development Manager



Getting Value from Every Fibre:

Making the Most of Alberta's Lignocellulose Resource



The New Face of the Canadian Forest Industry
The Emerging Bio-revolution
The Bio-pathways Project

February, 2011

THE CANADIAN BLUEPRINT
BEYOND MOOSE AND MOUNTAINS
HOW WE CAN BUILD THE WORLD'S LEADING BIO-BASED ECONOMY

Forest Products
Association of Canada
fpac.ca

FPIinnovations 

Fig. 1: Canada's bio-based economy has reached almost \$78 billion a year or 6.4% of Canada's current GDP.

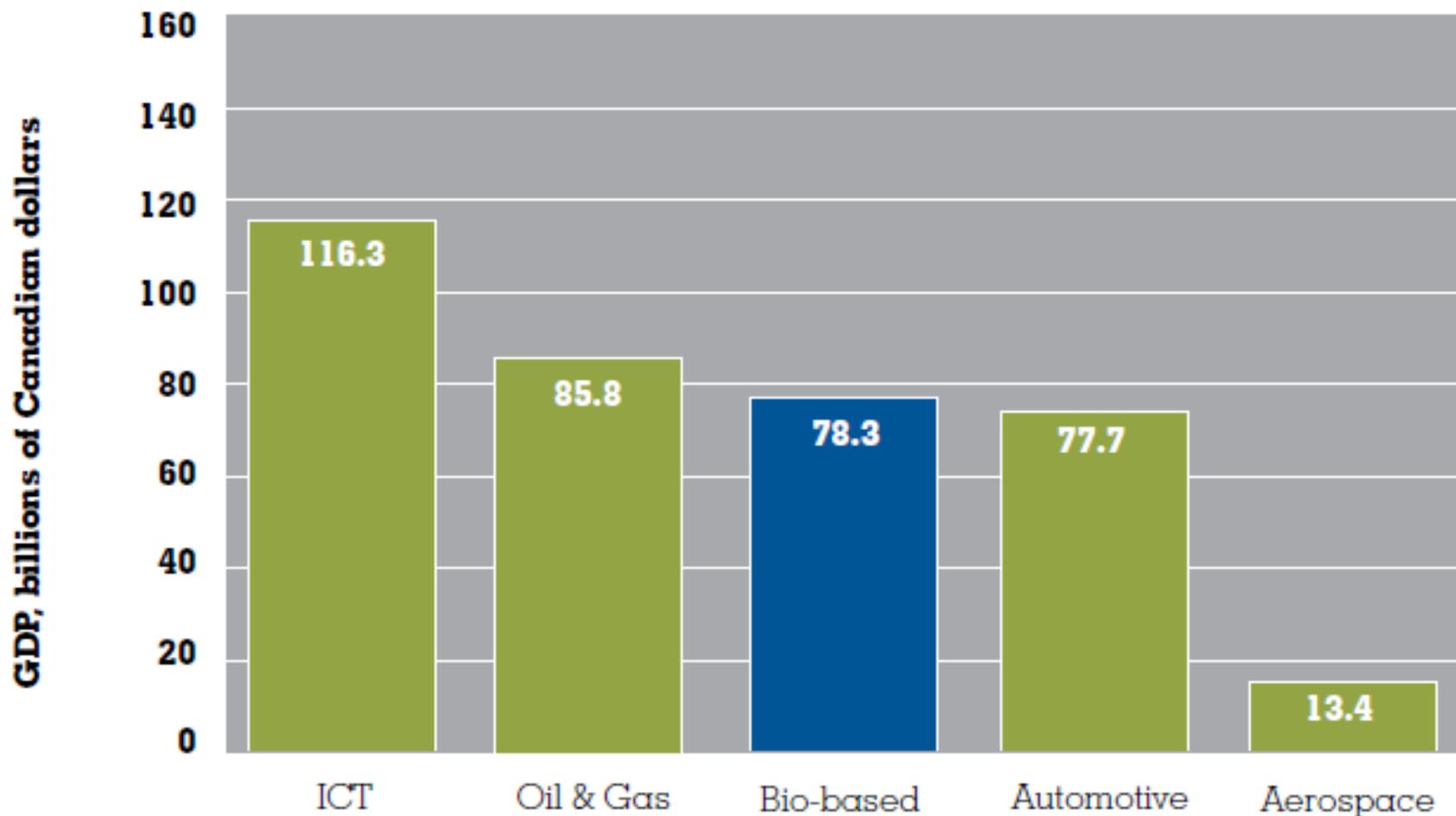
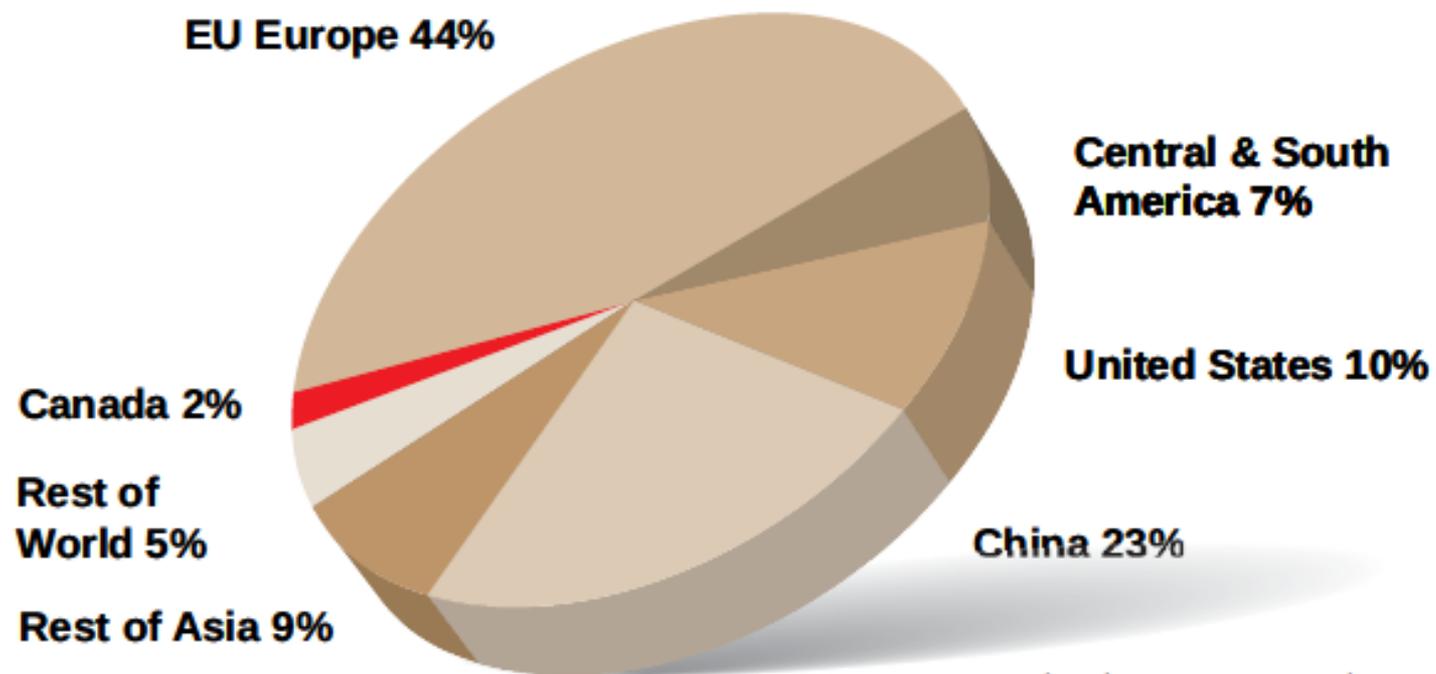


Figure 1 highlights the Biotechnology contribution to GDP over the past four years and compares it to the aerospace, automotive, oil and gas, and information and communications technology sectors in Canada.

GLOBAL BIOMASS ENERGY INVESTMENTS (2005–2009)*



*Bloomberg New Energy Finance

GROSS MARKET OPPORTUNITIES

Products	Annual Growth Rate (%) 2009-2015 (approximate)	Global Market Potential 2015 (US\$ billion)
Green chemicals	5.3	62.3
Alcohols	5.3	62.0
Bio-plastic and plastic resins	23.7	3.6
Platform chemicals	12.6	4.0
Wood fibre composites	10.0	35.0
Glass fibre market	6.3*	8.4
Carbon fibre	9.5	18.6
Canadian forest products industry	neg. to O-2	50.0

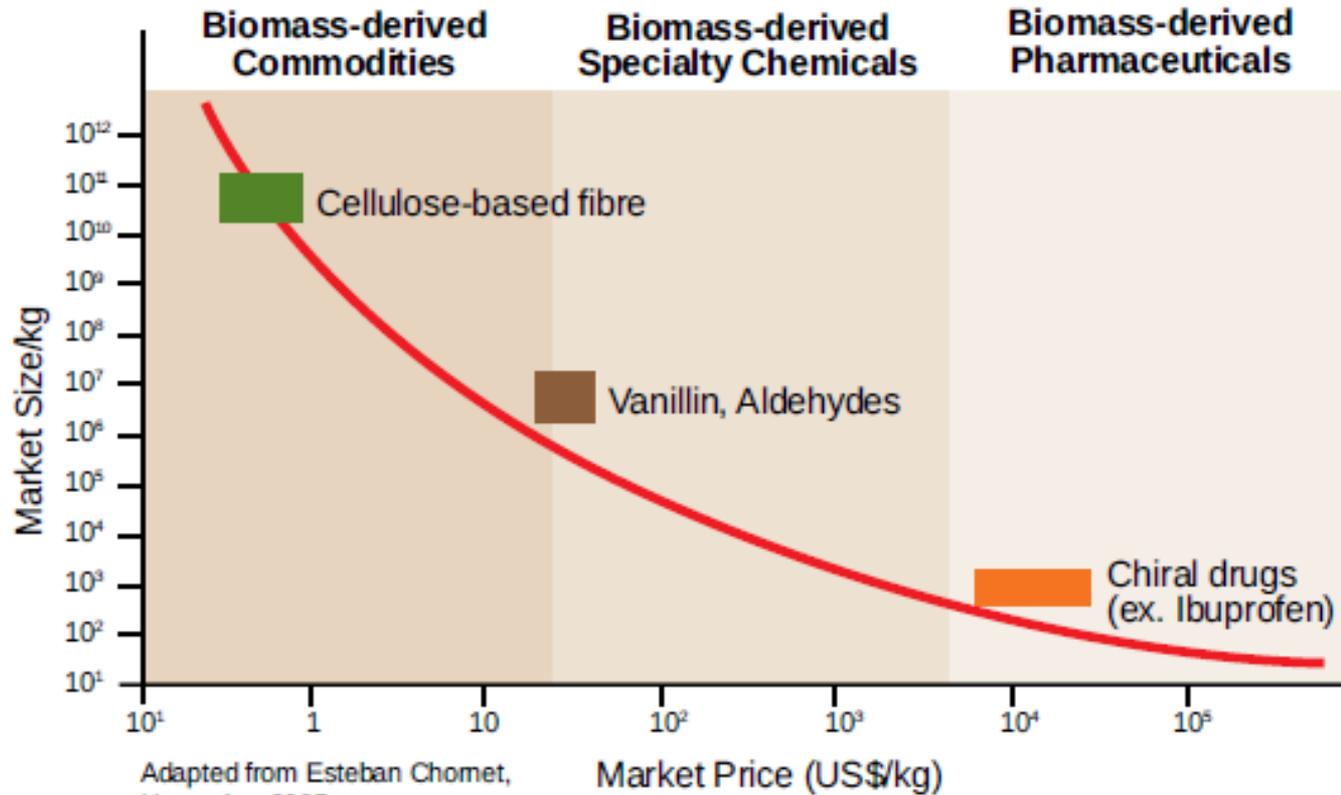
References:

Markets and Markets. 2009. Global Renewable Chemicals Market. The Freedonia Group. 2009. World Bioplastics. Industry Study 2548. Lucintel. 2009. Global Glass fibre Market 2010-2015: Supply, Demand and Opportunity Analysis. Acme Market Intelligence. 2010. World Carbon fibre Composite Market.

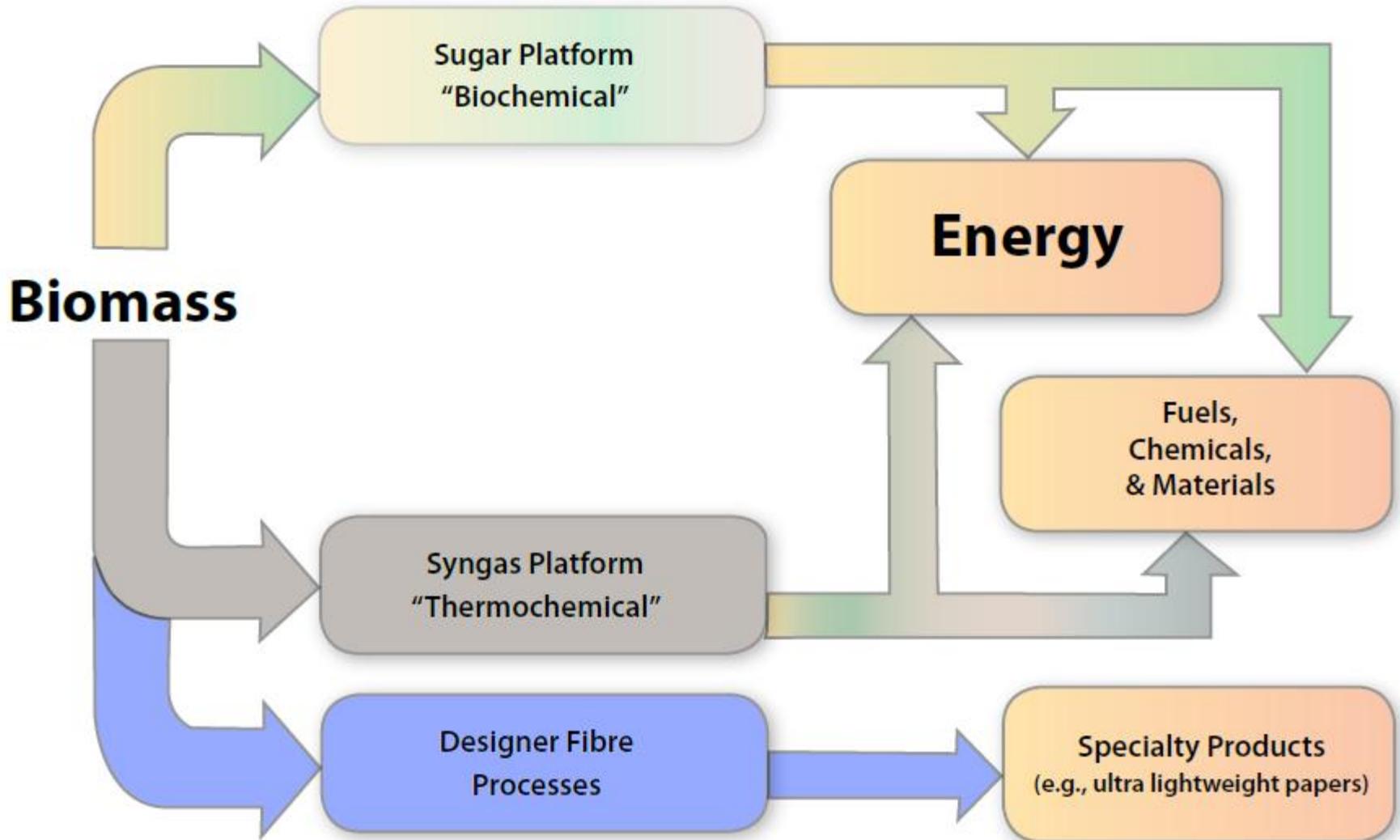
* CAGR for 2010-2015

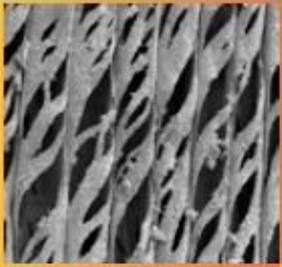
Source: Natural Resources Canada (NRCAN) and Industry Canada (IC)

MOVING TO HIGHER VALUE ADDED PRODUCTS



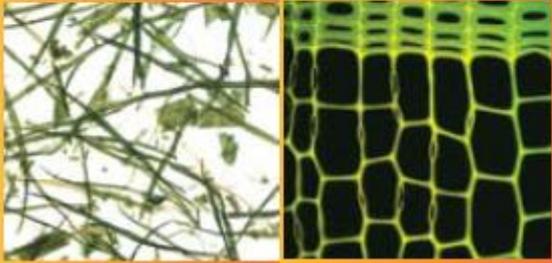
Biorefinery Concept





Getting Value from Every Fibre:

Making the Most of Alberta's Lignocellulose Resource



1. One Bio-economy
2. Develop a complete value chain
3. Nimble and flexible strategies
4. Support a sustainable environment

Mean Net Straw (1985 - 2001)

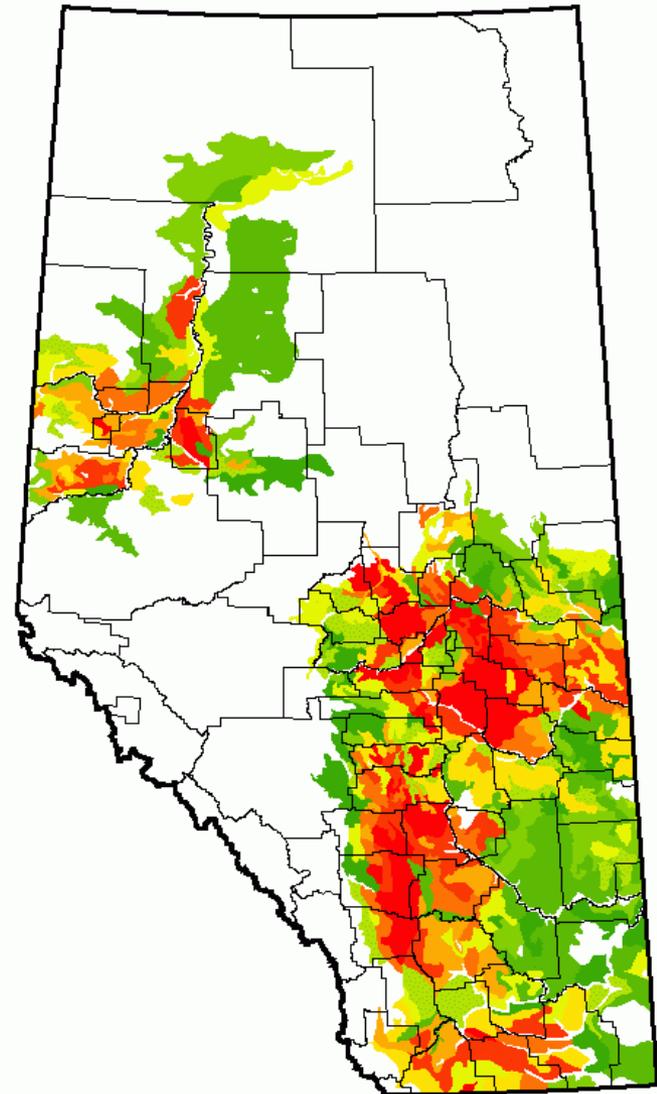
Mean Straw Tonnes per Square Kilometer



Statistics
Canada

Statistique
Canada

June 11, 2003



The Alberta BioMaterials Development Centre







Alberta



Alberta Biomaterials Development Centre
Advanced Products, Sustainable Solutions, Dynamic People.



Alberta 



Alberta Biomaterials Development Centre
Advanced Products, Sustainable Solutions, Dynamic People.



Alberta



Alberta Biomaterials Development Centre
Advanced Products, Sustainable Solutions, Dynamic People.

Challenges for the BioEconomy

- Attracting Investment for Commercialization
- Building the business case to do more here
- Hastening the pace of bioproduct adoption
- Attracting and retaining the high quality people with the experience, leadership and entrepreneurial skills to grow a bio-based economy

2:00pm to 2:20pm	Welcome & Thanks The Alberta Biomaterial Development Centre Richard Gibson- Lead Research Engineer Fibre Processing www.albertabiomaterial.ca	
2:20pm to 3:45pm	2:20pm to 2:30pm	BioSolutions embraces and supports new technologies and the creation of new ideas for the growing global bioeconomy http://www.albertainnovates.ca/bio/funding/advancedmaterials-chemicals
	2:30pm to 2:40pm	Venture Alberta seeks to develop the entrepreneurial ecosystem by marrying entrepreneurs/early stage companies in need of capital with angel investors who are seeking to invest in such opportunities http://www.venturealberta.com/
	2:40pm to 2:50pm	AVAC is an Alberta-based private, not-for-profit company that invests in promising early-stage value-added Alberta businesses in the agri-business, ICT, life sciences, and other industrial technology sectors. http://www.avacltd.com/
	2:50pm to 3:00pm	NSERC-Natural Sciences and Engineering Research Council of Canada aims to make Canada a country of discoverers and innovators for the benefit of all Canadians. http://www.nsercpartnerships.ca/index_eng.asp
	3:00pm to 3:10pm	Business Development Bank of Canada offers financing, business loans, consulting and venture capital to businesses (SME). http://www.bdc.ca/en/Pages/home.aspx
	3:10pm to 3:20pm	ACIDF- Alberta Crop and Industry Development Fund funds and supports selected crop related industry development activities, which include market development, research, and extension http://www.acidf.ca/
3:30pm to 5:00pm		Networking & Refreshments