WOOD PELLET ASSOCIATION OF CANADA

Welcome to the

Conference and Annual General Meeting

November 27-28 2012

WOOD PELLET ASSOCIATION OF CANADA

Thank - You

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Canadian Biofuel

nexus invest

IBL
INDUSTRIAL BULK LUBRICANTS
A DANSONS COMPANY

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Thank - You

WOOD PELLET
ASSOCIATION OF CANADA

The Year in Review and Outlook for 2013

WPAC Conference and AGM
November 28, 2012 | Québec

Gordon Murray, Executive Director

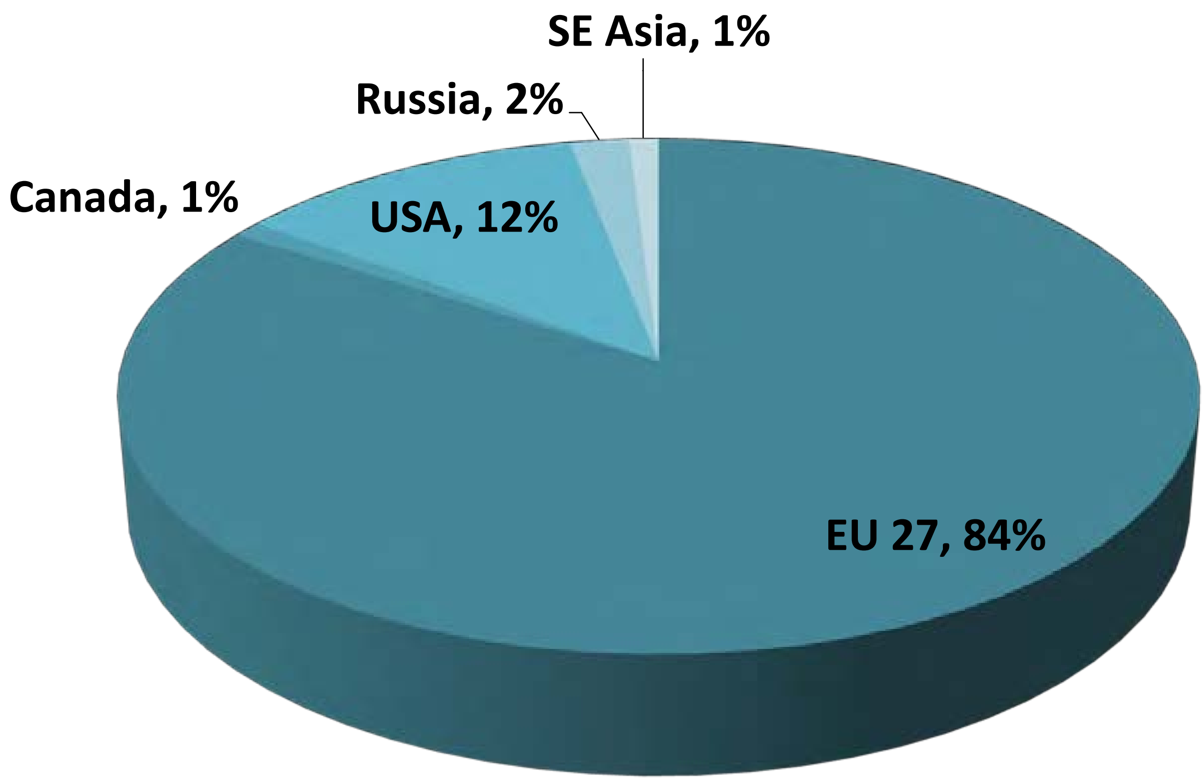
WOOD PELLET ASSOCIATION OF CANADA

Welcome New Members!

Atco Wood Products	Protocol Biomass Corp
Canfornav	Scheuch Inc.
CTL Westrans Shipbrokers	Seeger Green Energy
McKeil Marine	Timber West Forest Corp

Producing members	17
Associate members	37
	54

Global Pellet Consumption 2011



Total: 14.4 mn tonnes

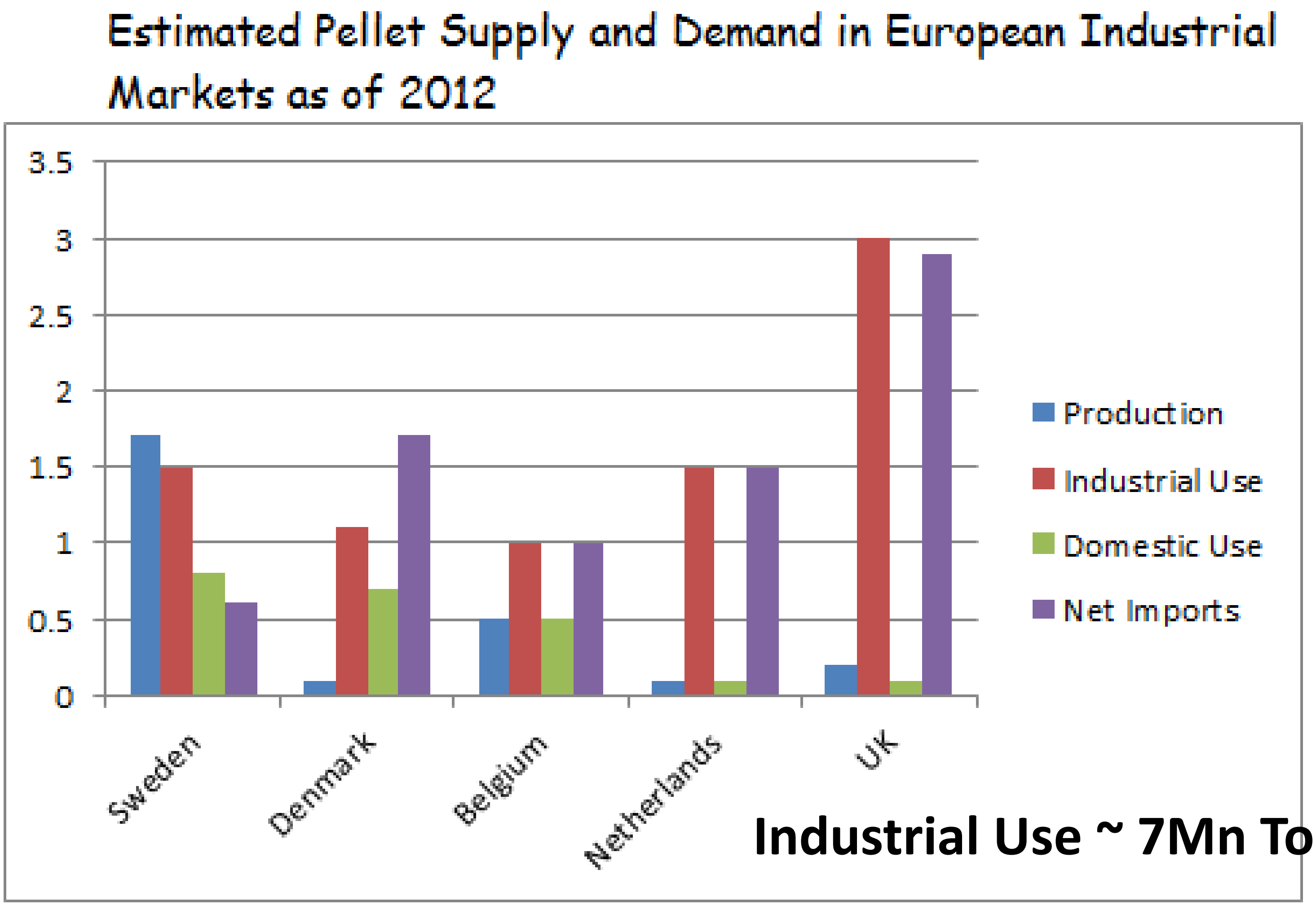
Europe: 12.0 mn tonnes

Source: Argus & Lammers et. al.

Biomass Trade Routes

Source: Brodie Govan, Argus Biomass Markets

Supply/Demand in Key EU Markets



Industrial Use ~ 7Mn Tonnes

RWE Tilbury Fire

- Fire took place February 27, 2012
- Plant was to use 2.5 million tonnes next 18 months
- Was back on line by August
- Huge European inventories remain


South Korean Market

- Utilities forecast 5 mn tonnes by 2020
- Represents $1 bn capital investment
- Koreans unwilling to enter long term agreements
- Unwilling to compete with European pricing
- Koreans wish to purchase via open bidding
- So far no significant transactions

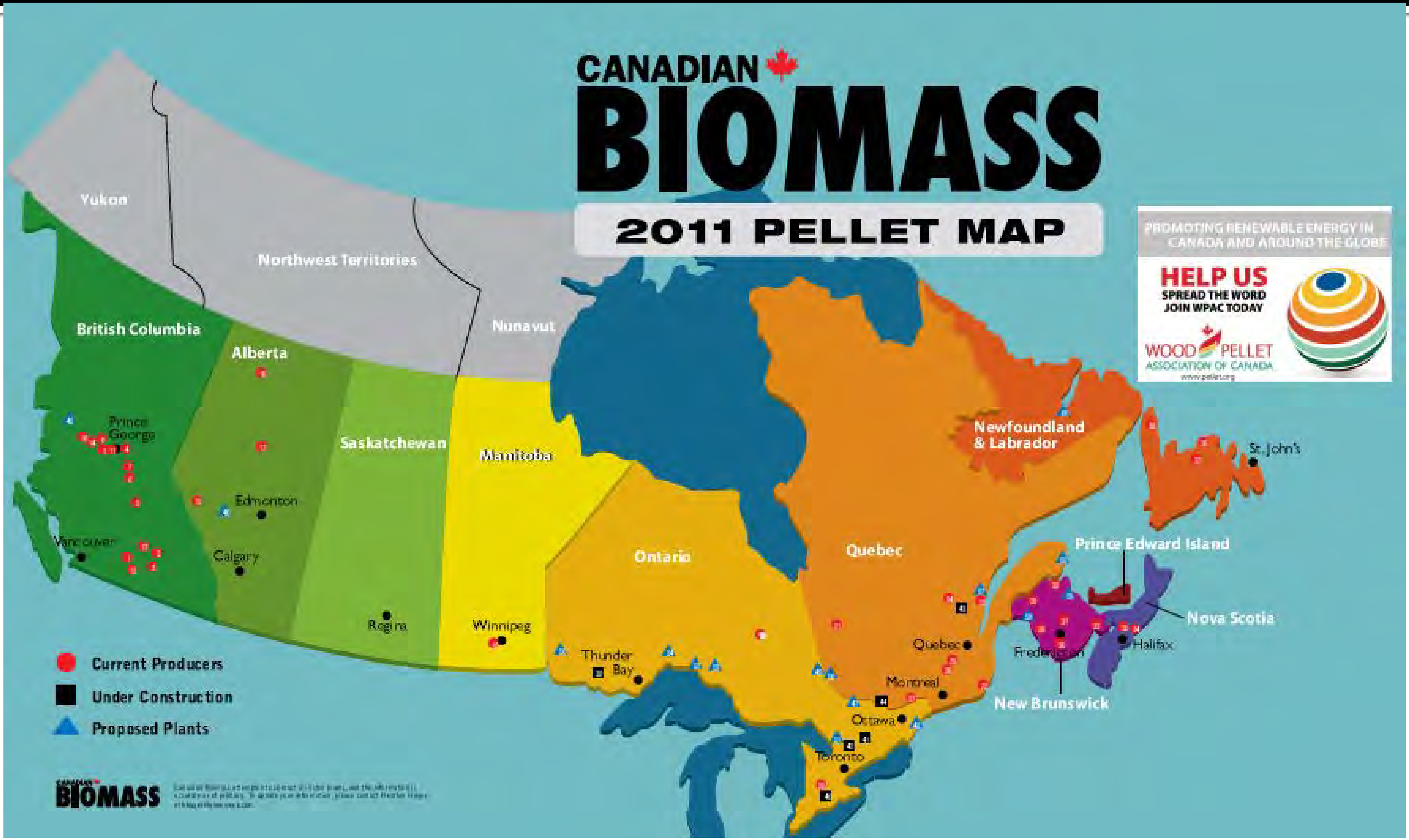
Japanese Market

- New feed-in tariff effective July 1, 2012
- Applies to wind, solar, hydro, geothermal, biomass
- So far no proposals to consume pellets
- Renewable energy to increase from 6,500 MW to 30,000 MW
- Fluidized bed boilers: prefer chips over pellets

Potential Canadian Industrial Market

- Canada uses 60 million tonnes of coal annually
- New coal emission regulations released Sept 2012
  - In force effective in 2015
  - Caps emissions at 420 tonnes CO_2/GWh
  - Compare to status quo at 1050 tonnes
  - Applies to new units and those aged 50+
  - Biomass emissions deducted from total
  - Potential pellet use – 5.5 mn t by 2019

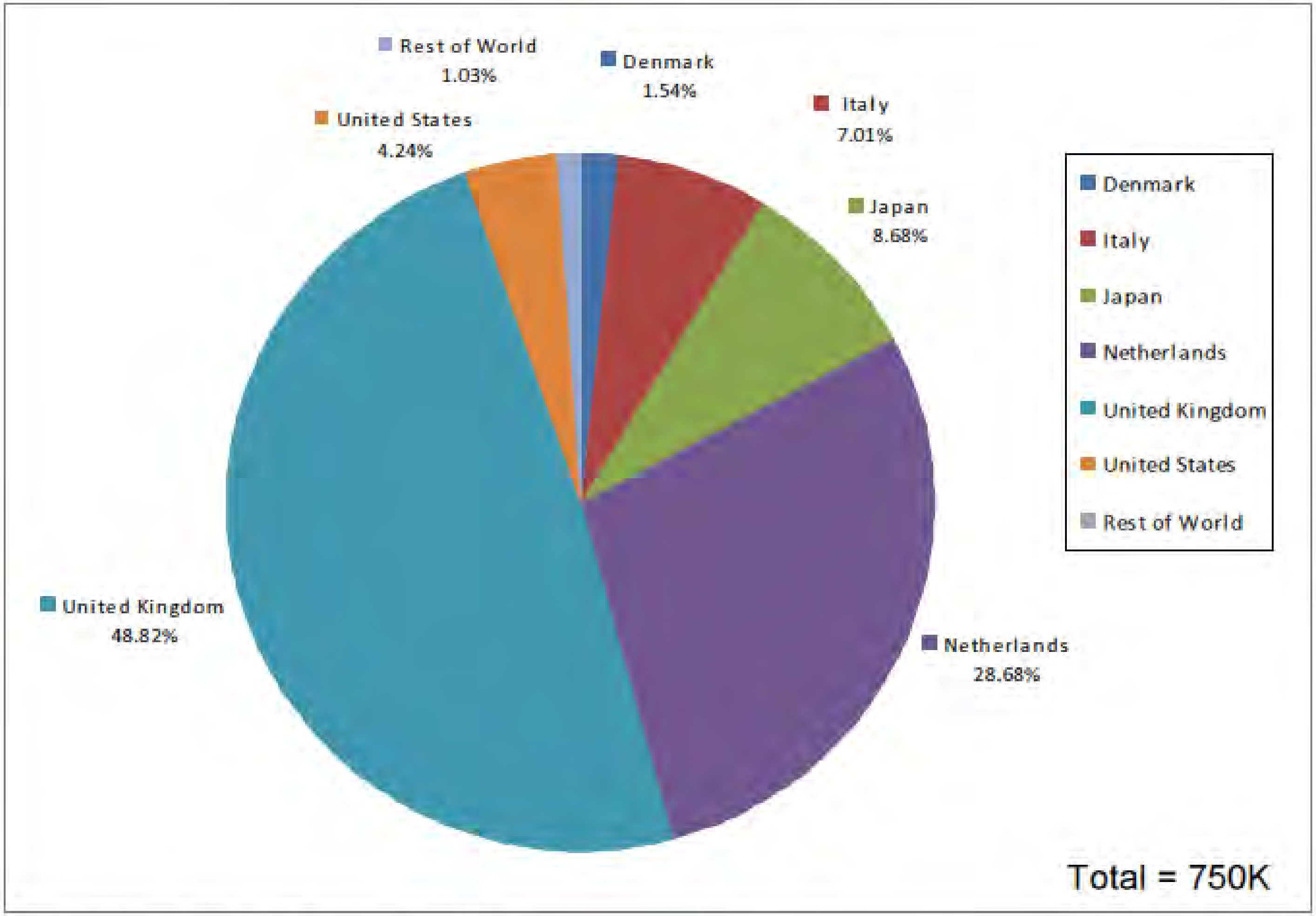
Canadian Pellet Plant Locations



Canadian annual pellet production capacity as of October 2012 – tonnes

	Plants	Average	Largest	Total	%
Western Canada	16	118,000	400,000	1,889,000	64%
Eastern Canada	22	55,000	130,000	1,042,000	36%
All of Canada	38	79,000	400,000	2,931,000	100%

Canadian Pellet Exports by Country Jan to Jul 2012



Source: Statistics Canada, 2012

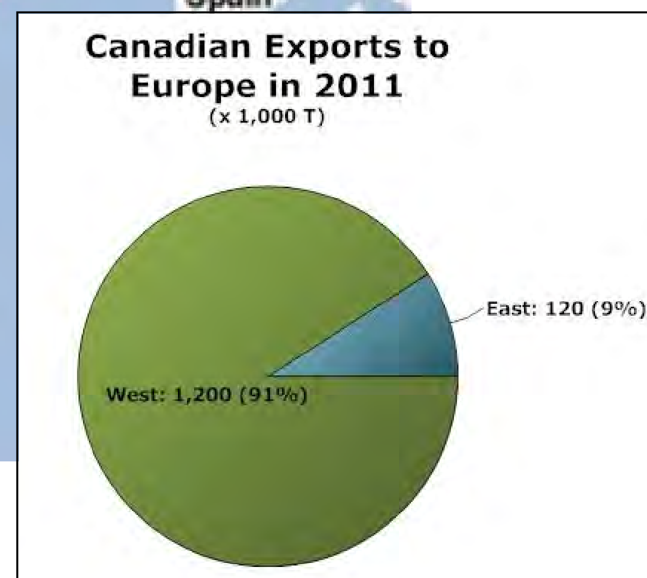
Fibreco Export – North Vancouver

Will ship 1.6 mn tonnes in 2012

Belledune NB – the only active pellet port

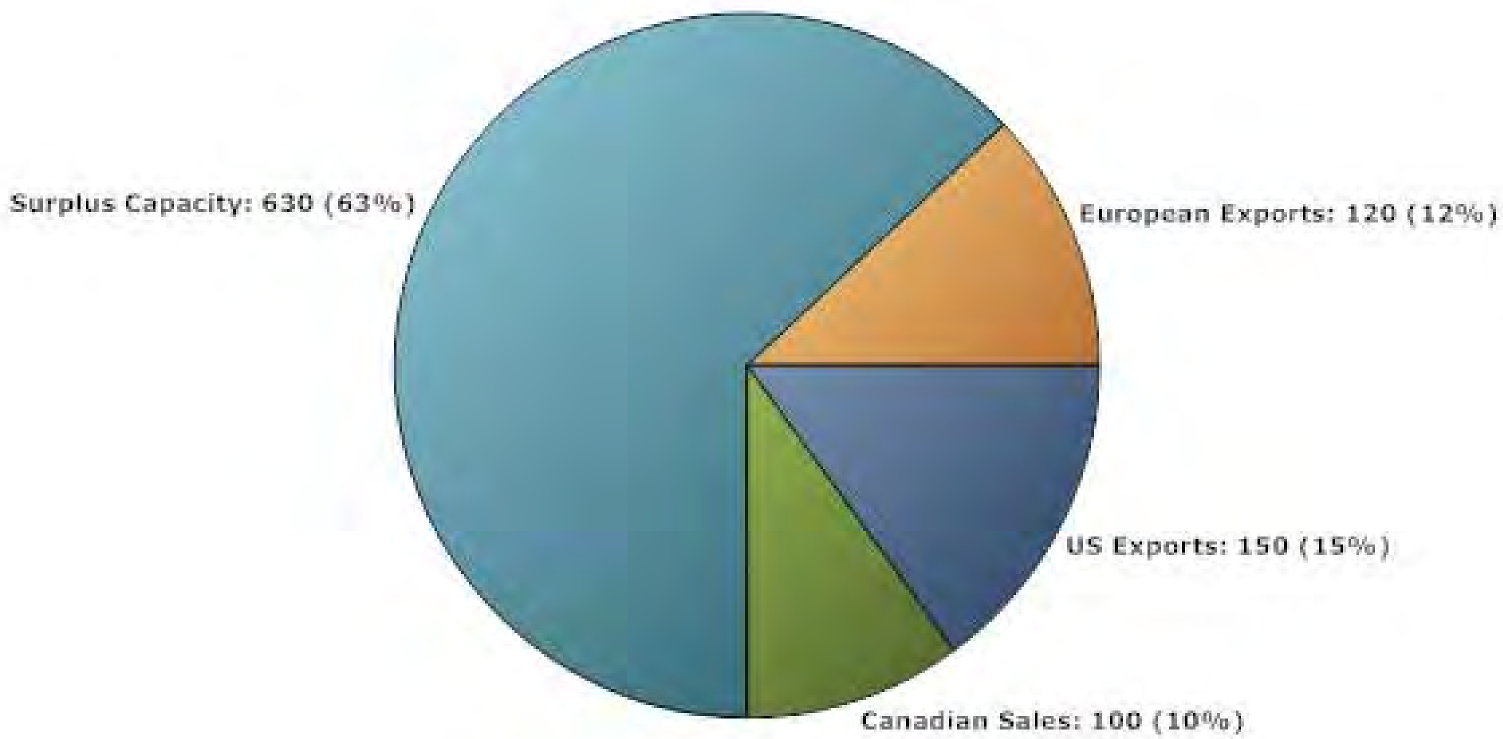
- Shipped 120,000 tonnes in 2011 (2 producers)
- Total annual bulk cargo ~ 2 mn tonnes
- Pellet terminal has 10 m draft
- Handles up to Handymax – 50,000 DWT

Canadian Pellet Exports to Europe



Eastern Canada Opportunity

- Annual capacity – 1 million tonnes
- Surplus capacity – 630 thousand tonnes



Wood Pellet Fibre Sources

Sawmill residues

Logging residues

Former Uses

Sawmill residues

Logging residues

NRCan and FII Supported Projects (1)

- Canadian industrial market development (FII)
- European market study (NRCan / FII)
- Enplus pellet certification – Canadian rights and ISO standard development (NRCan & FII)
- Canadian co-firing study (FII & CCPC)
- Eastern Canadian logistics study (NRCan)

Natural Resources Canada Ressources naturelles Canada

Forestry Innovation Investment

NRCan and FII Supported Projects (2)

- Carbon emissions (NRCan & FII, BCBN)
- Initiative Wood Pellet Buyers (NRCan & FII)
- European trade shows/conferences
  - Italian mission / trade show
  - European pellet conference - Austria
  - Argus biomass trading – London
  - AEBIOM bioenergy conference – Brussels
  - Pellets Industry Forum Berlin

Natural Resources Canada Ressources naturelles Canada

Forestry Innovation Investment

BC Bioenergy Network
PARTNERING FOR A GREENER FUTURE

CCPC and WPAC Study: Biomass Co-firing with Coal (1)

- CCPC 2010 study, “biomass is a viable alternative for emissions reductions in existing coal plants…”
- Now a detailed approach needed to assess technical and economic viability
- Study biomass co-firing with coal at three power plants: Wabamun, AB; Shand, SK; and Trenton, NS

CCPC and WPAC Study: Biomass Co-firing with Coal (2)

- Budget $200,000
- Consultant: FPInnovations
- Source of pellet costs: WPAC

Canadian Clean Power Coalition

Wood Pellet Association of Canada

WPAC is participating with NRCan & EC in a pellet emissions study

"Development of Canadian Industrial Emission Factors Related to the Combustion of Woody Biomass and Co-Combustion of Woody Biomass with Coal in Utility Boilers for Policy Development"

Canada

Natural Resources Canada
Environment Canada

Project Overview

- **Objective -** develop Canadian industrial emission factors for combustion of wood pellets and co-combustion of wood pellets and coal to support policy development
- **Scope**
  - Emissions: GHGs, ash, heavy metals
  - Feedstock: wood pellets and coal
- **Three-year project**
  - Initially – lab scale tests
  - Ultimately – utility scale tests at Canadian coal power plants
- **Budget**
  - Approx $800,000

Project Advisors

- Canadian Clean Power Coalition
- Environment Canada
- Manitoba Hydro
- Natural Resources Canada
- Nova Scotia Department of Energy
- Nova Scotia Environment
- Ontario Ministry of Environment
- Ontario Power Generation
- US Department of Energy
- Wood Pellet Association of Canada

European Initiative Wood Pellet Buyers

- Utilities: Dong Energy, Drax, EON, GDF Suez, RWE, Vattenfall
- Producers: WPAC, USIPA, EPC/EIPS
- Agenda:
  - Standard spot contract – nearly done
  - Industrial specifications - done
  - Sustainability crit
- New organization:
  “Industrial Wood Pellet Roundtable”

Bio-energy requires society's acceptance

The wood pellet industry exists for only two reasons:

- Bioenergy is carbon neutral
- Bioenergy is sustainable

Regardless of facts, if society comes to disbelieve either of those statements, then our industry will be in grave jeopardy

There is now a well-organized anti-bioenergy movement saying:

- Cutting forests to burn for electricity is a bad idea.
- Bioenergy is causing forests to be destroyed.
- Governments are subsidizing deforestation.
- Biomass is not carbon neutral and is more damaging to the environment than coal.
- Biomass subsidies are driving up the cost of raw material for other industries.

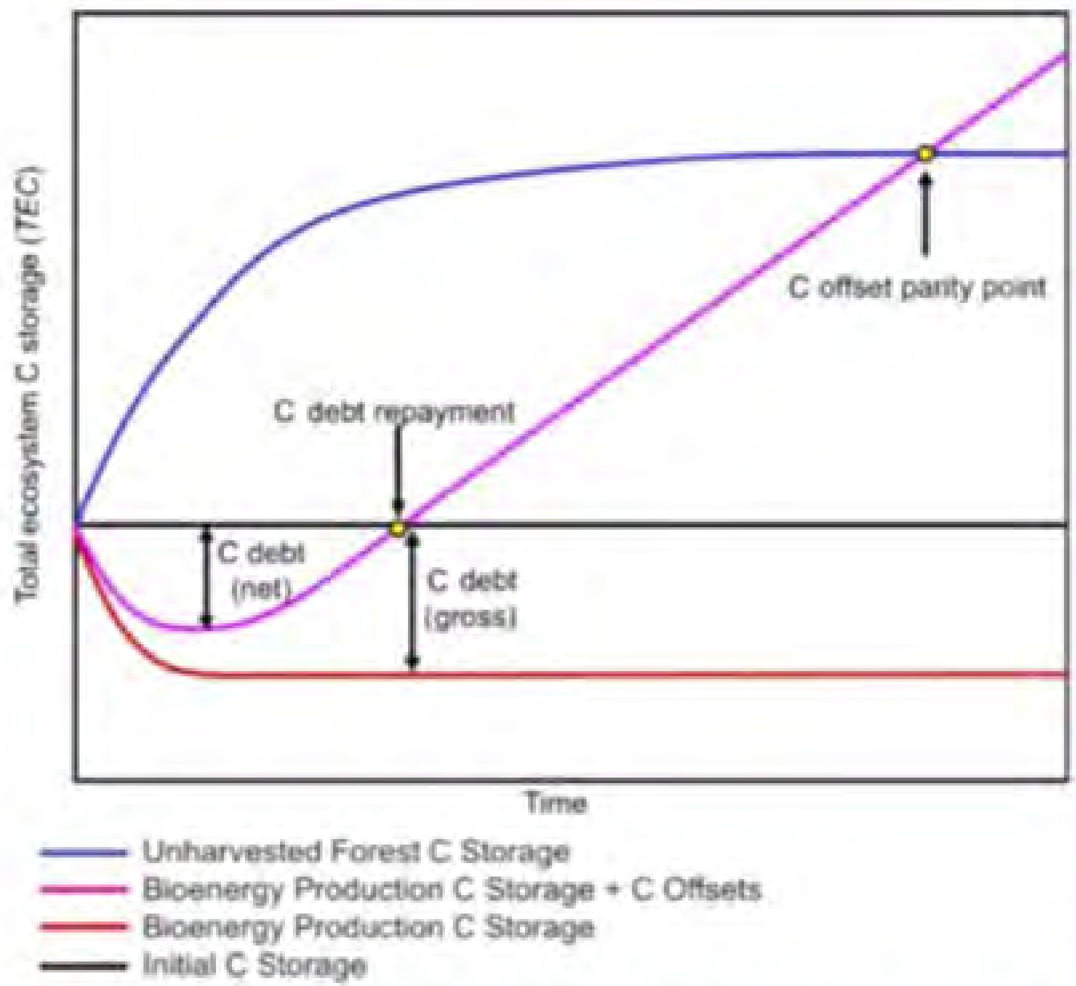
So what should we do?

- Counter misinformation with scientific fact
- Provide proof of sustainability
- Conduct business to highest ethical standards
- Positive information campaigns – i.e. UK's Back Biomass Campaign (Drax, EON, USIPA and others)

Carbon Neutrality Project

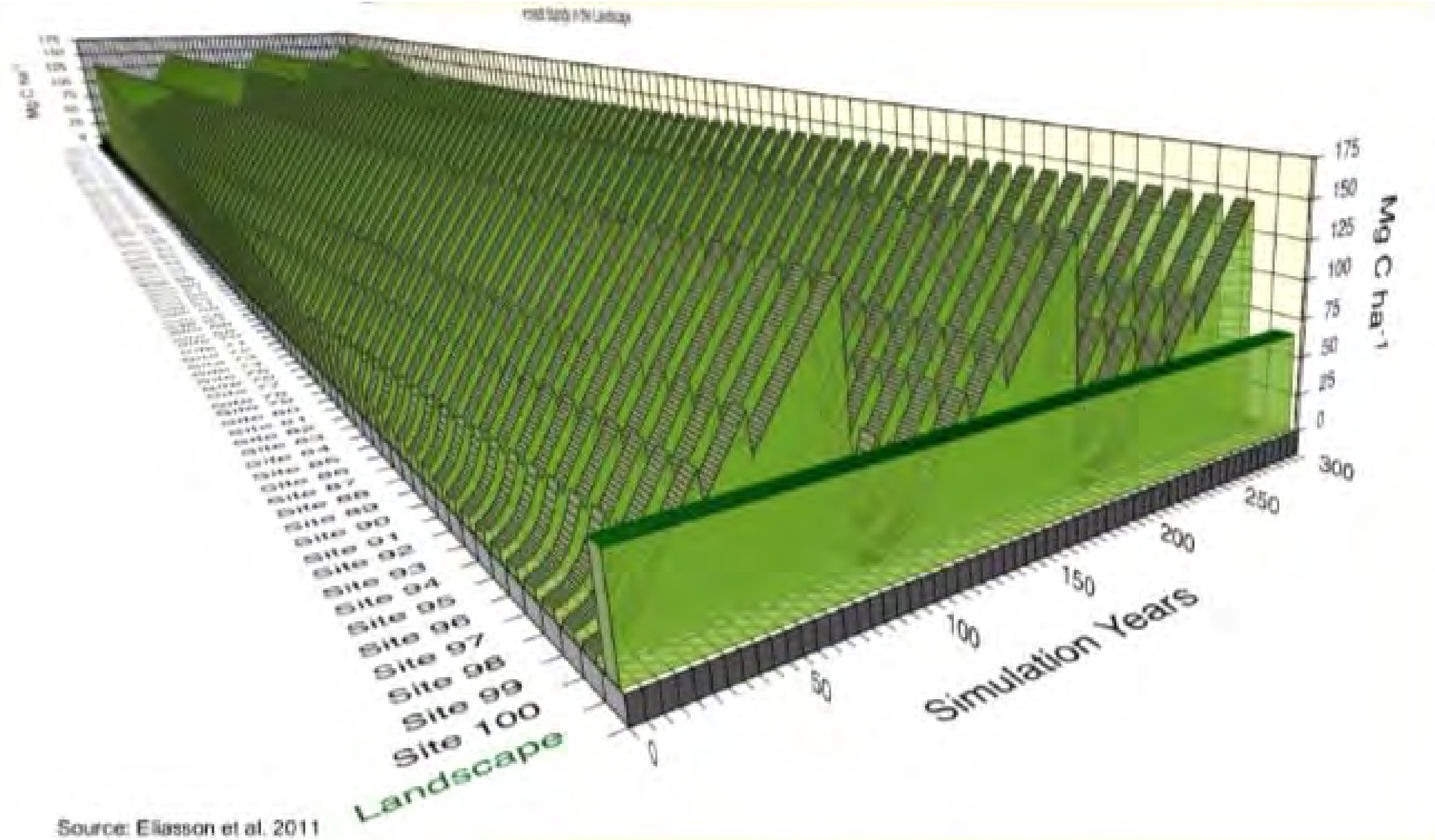
- European Biomass Association
- European Pellet Council
- US Industrial Pellet Association
- Wood Pellet Association of Canada
- Danish Energy Association
- Utilities: Drax, EON, GDF Suez, RWE, Vattenfall

Carbon Debt and Parity Point



Visual representation of the carbon payback period and the carbon offset parity point, taken from Mitchell [2012]

Landscape Level



Source: Eliasson et al. 2011

Sustainability

- European Commission DG Energy
- UK Dept Energy & Climate Change
- Unification of European utility schemes
- RWE npower visit to Ontario and BC

IWPB Sustainability Principles

IWPB SUSTAINABILITY PRINCIPLES
Principle 1: GREENHOUSE GAS BALANCE (GHG) The greenhouse gas (GHG) savings along the entire life-cycle, taking into account the whole supply chain including production, processing, transport and end-use are at least 60% with respect to reference fossil fuels
Principle 2: CARBON STOCK Production of woody biomass fuels does not take place at the expense of significant carbon reservoirs in vegetation and soil..
Principle 3: BIODIVERSITY Production of wood biomass fuels may not take place in areas with high biodiversity value, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes
Principle 4: PROTECTION OF SOIL QUALITY Production and processing of woody biomass fuels should maintain or improve the soil quality.
Principle 5: PROTECTION OF WATER QUALITY Production and processing of woody biomass fuels should not exhaust ground and surface water and should avoid or significantly limit negative impacts on water.
Principle 6: PROTECTION OF AIR QUALITY Production and processing of woody biomass should avoid negative impact or significantly reduce impact on air quality.
Principle 7: COMPETITION WITH LOCAL BIOMASS APPLICATIONS Production of woody biomass should not endanger food, water supply or communities where the use of this specific biomass is essential for subsistence.
Principle 8: LOCAL SOCIO-ECONOMIC PERFORMANCE Production of woody biomass should respect property rights and contribute to local prosperity and to the welfare of the employees and the local population.
Principle 9: CORPORATE RESPONSIBILITY Generic sustainability principles not directly related to woody biomass are covered by the Codes of Conduct or Policies of the members of IWPB covering all types of commodities and should be applied for production and processing of woody biomass.

IWPB: Sustainability Scheme Options

- Adapt RWE/CU's Green Gold Label for use by all utilities
- Develop a new certification scheme from scratch
- Integrate into another existing scheme: e.g. PEFC

PEFC

GGL
green gold label

Market Development

- Drax conversion of units to 100% biomass
- RWE Tilbury
- Eggborough Power
- Eon – Ironbridge
- GDF Suez / International Power – Rugley
- Italy

IMO Non-hazardous Cargo List

- List was updated in 2011
- Pellets are not “non-hazardous”
- CO2 fire extinguishing on ships – 15% have
- Potential huge increase in shipping rates
- UBC study, now more work needed
- Funding from Drax, Electrabel, Oldendorff

INTERNATIONAL
MARITIME
ORGANIZATION

International Cooperation

- IWPB
- USIPA
- EPC
- USIPA
- PFI
- EIPS
- AEBIOM
- Danish Energy Assoc
- Utilities

2013

- Sustainability
- Enplus
- IMO fire extinguishing
- Canadian co-firing
- Eastern Canadian logistics
- Domestic market focus
  - Conference in February

Thank - You

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Canadian Biofuel

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IBL INDUSTRIAL BULK LUBRICANTS

WOOD PELLET ASSOCIATION OF CANADA

Arnold Dale
EKMAN & CO

Trends and developments in the International Pellets Market

Wood Pellet Association of Canada
November 2012

Ekman is one of the world´s leading sales and marketing organizations, focusing on the global forest industry.

Ekman at a glance

Pulp

Paper &
Packaging

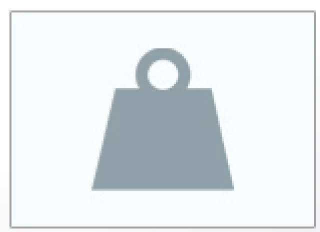
Recovered
Materials

Bioenergy

Incorporated in
1802

260 employees
40 locations

Represented in
100 + countries



+ 3 400 000
tons/year

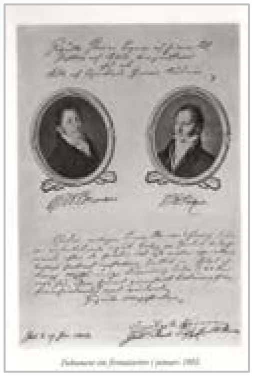
Ekman

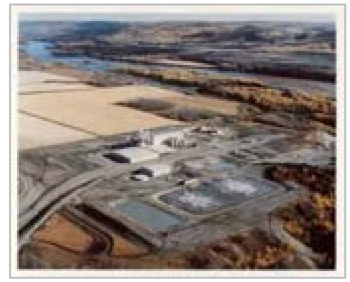
Business concept

”To add value to the supply chain for forest related products worldwide.”

Ekman over five centuries








17th | 18th | 19th | 20th | 21st

1663
The family founds its first business, selling iron and timber.

18th century
Different businesses specialized in timber and herring.

1802
Ekman & Co incorporated.

1890
One of the pioneers as the Swedish forest industry begins to export pulp and paper.

1914
Shanghai office opens.

1945-1980
A very expansive period. In the early 80's, business focus shifts to forest related products.

1992
Acquires ICS Inc.

1992-2010
Sales volumes grow from 1,000,000 tons to 3,000,000 tons.

2002
200 year anniversary.

2004
Enters the Recovered Materials' business by acquiring KC International
.

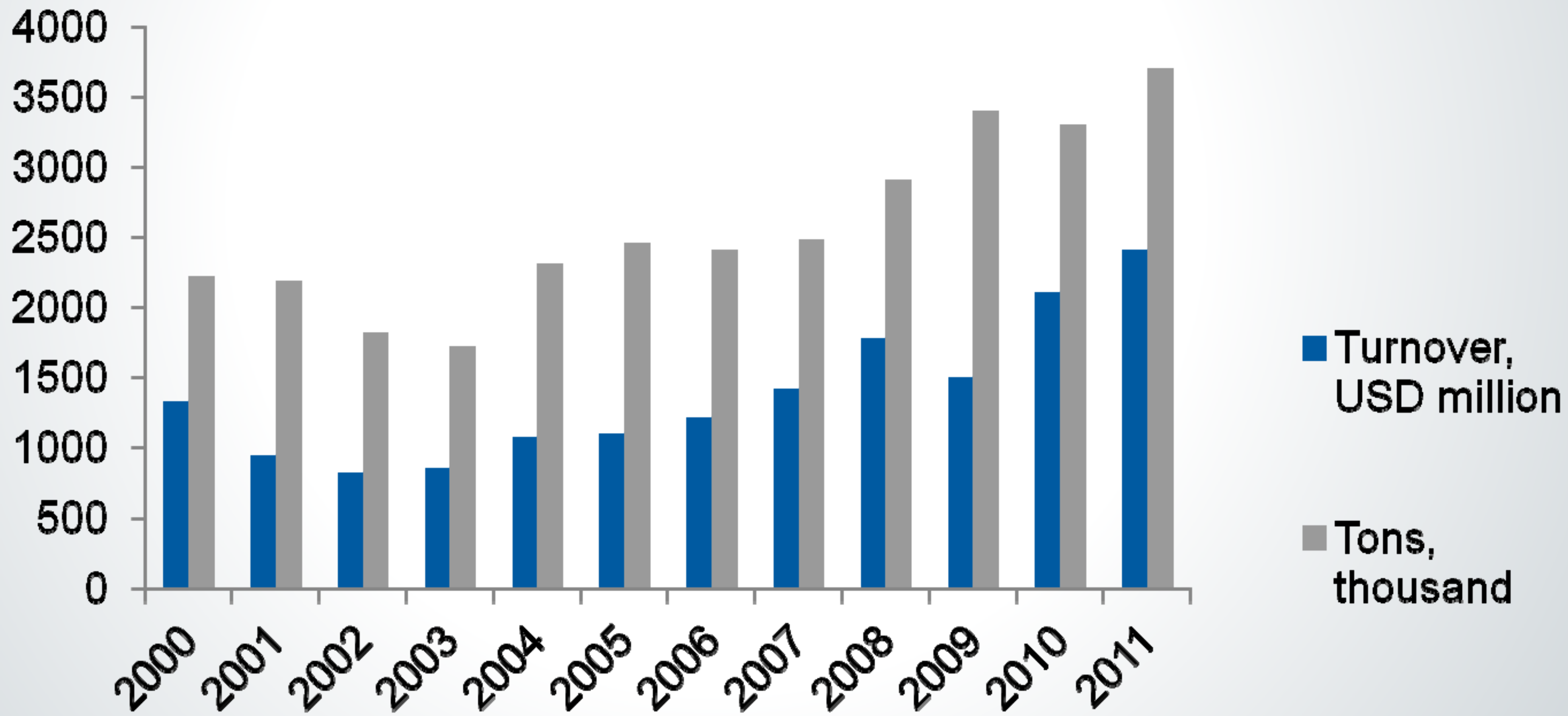
2008
Establishes a Bioenergy division.

2010
Collaboration with Vyborgskaya Cellulose on the worlds' largest wood pellet factory.

2011
Acquires Kwok Fung.

Ekman

Ekman Group
Volume & Turnover 10 years



Bioenergy – at a glance

- 9 employees in Sweden, Denmark and Latvia
- Trading wood pellets and PKS since 2008
- A leading biomass trader in Europe
- Exclusive agents for 900,000 ton wood pellet plant in Vyborg, Russia
- Regular trade flows of wood pellets and unrefined wood fuels
- Expansion plans include Asia and the Americas

Trends and developments in the International Pellets Market

Arnold Dale
Ekman & Co

Wood Pellet Association of Canada
November 2012

Trends and developments in the international pellet market

- The industry is still awaiting confirmation of the UK ROC banding for burning biomass
- Even before the new ROC banding has become law there have been many initiatives by the UK based power plants
- UK power plants setting up offices in other continents in order to have a purchasing base closer to the wood pellet manufacturers

- Some UK power plants appointing sourcing agents to obtain greater global reach
- A greater willingness to utilise price indices for future price increases rather than just an inflation percentage

Ekman

The industrial wood pellet market

- There is a belief that industrial wood pellets have inferior quality requirements this is untrue
- Production costs are more or less the same as for domestic pellets
- Product stops being local but becomes international this broadens horizons for both suppliers and users
- Politically driven rapid growth creates some uncertainty about long term future volumes
- Ideally suited to larger manufacturers who also have to sell in very large quantities in order to optimize their logistics costs

Ekman

Politically driven growth can distort existing markets

- **Scandinavia –** CHP conversions to wood pellet use to continue mainly in Denmark
- **Holland** - For many years Holland has been an example to other countries in the use of biomass. This has now slowed pending new subsidies
- **Belgium** - GDF Suez still utilise large amounts of wood pellets and this will continue
- **Germany** – Despite the closing of all nuclear power plants there has been no rush to replace lost output with biomass due to lack of government support
- **France** – There are many plans for the use of biomass in heat and power installations
- **Spain** – Due to the economic crisis the government has withdrawn subsidies once again disappointing investors
- **Poland** – A lack of political clarity about the use of biomass. Utilities burning biomass expected a new policy to be in place by 2013. That looks likely to be delayed by 6 months

Ekman

The UK alone will radically redraw the pellet map

(source John Bingham-Hawkins Wright)

- There are 17 large coal fired power plants in the UK
- It is not yet clear how many plants will co fire at the enhanced rate or will convert to biomass
- 5 have opted out of LCPD plus half of Ferrybridge, 2 of the opted out plants will convert to biomass – RWE Tilbury 750 MW and EON Ironbridge 480 MW
- Many power plants will convert to biomass on a unit by unit basis this will allow the change from coal to biomass to take longer
- In addition to the above several new dedicated biomass plants will be built it's anyones guess how many, but even 2GW will mean another 5 million tons
- An expected market of anything from 25 to 30 million tons

Ekman

How many new large pellet plants are being built?

- Most new plants are being planned in the USA
  it is estimated that another 5 million tons of
  output will come online during the next few years
- Enviva are currently building several plants
  with an expected total output of more than 1 m
- Russia has a vast potential and could supply
  several million more tons of wood pellets
- South America will also become a wood pellet producing region with other companies following Suzano in Brazil who are still planning to build up to 3 million tons of capacity during the next 5 years
- The future demand for wood pellets is expected to be so great that the large buyers will continue to look at small pellet plants

Who are the suppliers?

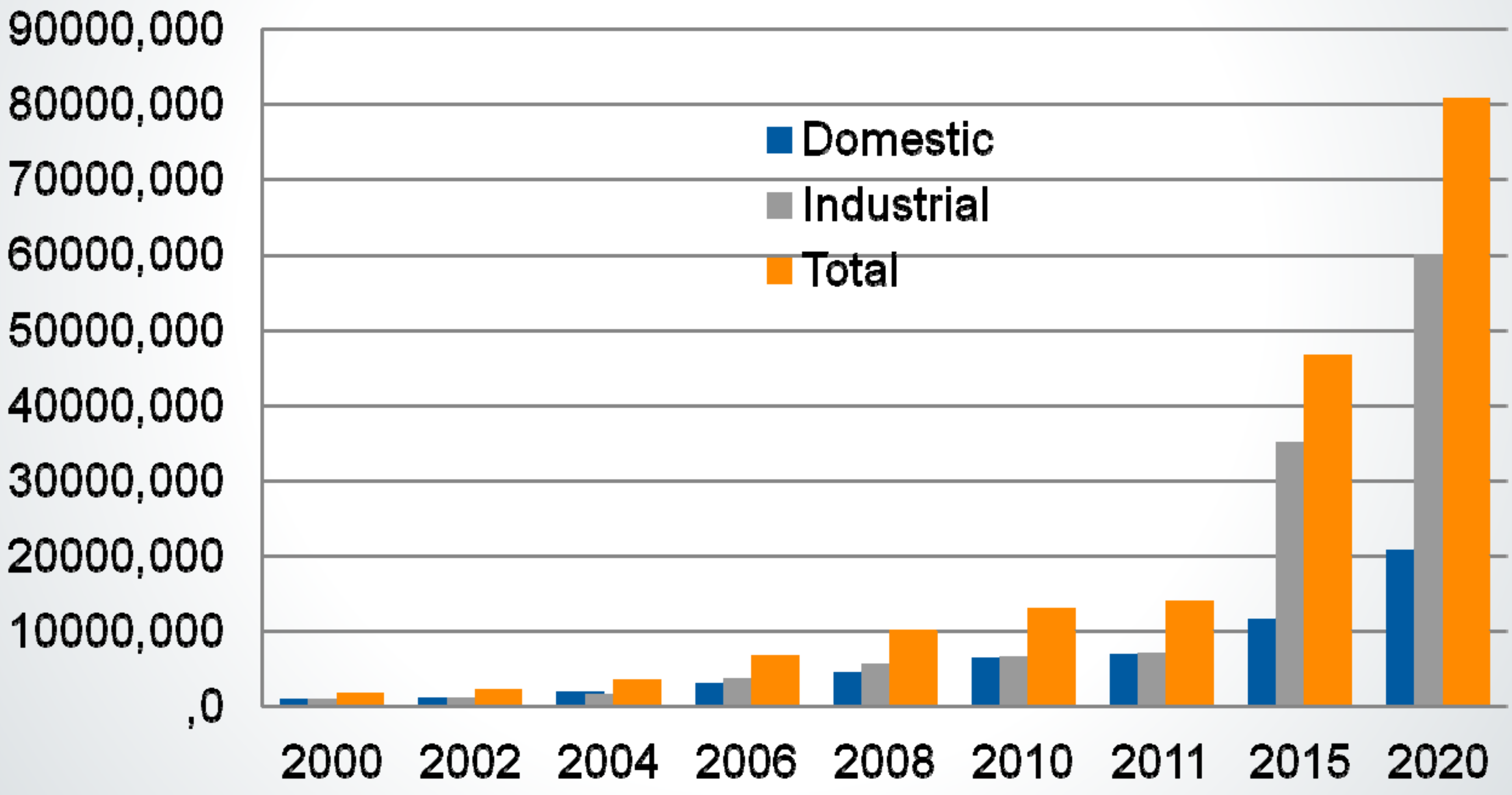
- The big Canadian and American producers will keep growing by adding volume. But no new mega plants are currently planned
- RWE, GDF Suez have upstream projects this looks like becoming a trend with Drax also having announced plans to move upstream
- Consolidation has to happen some traders are now consolidating stock in warehouses in US ports for shipment to Europe
- More pulp manufacturers will step in, especially if it becomes clear that it is possible to be profitable. There are obvious reasons for this. A good infastructure already in place, they know wood, financial clout

Ekman

Will the industrial and residential markets converge?

- We believe this will happen as more manufacturers realize that having a broader client base will provide greater security than a long term contract
- The residential market is growing steadily and long may this continue however greater professionalism by importers is needed
- In a lot of countries local pellet producers are experiencing difficulty obtaining enough raw material to meet local demand
- The only way to keep growing in these markets will be through imported wood pellets
- We have seen the first large shipments of residential grade wood pellets from the USA to Denmark

Global wood pellet demand by 2020



Trends and developments in the international pellet market - Conclusions

- The international wood pellet market will continue to grow more rapidly than at present with the Americas becoming the main wood pellet producing region
- The international wood pellet market is a politically driven market and this is both good and bad
- Sustainability will become even more important and an industry wide standard approach is required
- Large industrial wood pellet producers will start to sell in to the European domestic wood pellet market once they can find the right credit worthy partners with a good logistics infrastructure in place
- We expect more multinational companies to enter the wood pellet market
- Consolidation has already started with larger wood pellet producers buying smaller producers and then improving the output of these pellet plants

Ekman

ONE OF THE WORLD’S LEADING SALES AND MARKETING ORGANIZATIONS FOCUSING ON THE GLOBAL FOREST INDUSTRY.

Quebec Wood Export Bureau

Eastern Canadian Wood Pellet situation

Pierre-Olivier Morency, Director

Pellet group, QWEB

Wood Pellet Association of Canada AGM

Quebec city, Qc, November 28th, 2012

Canada Wood

Produits de bois canadien

Quebec Wood Export Bureau (QWEB)

Quebec Wood Export Bureau

«…a non-profit promotional, private and technical organization established to stimulate the export of Quebec (Canada) wood products to overseas markets»

More than 200 manufacturing businesses exporting and working in six distinct fields:

- Softwood-Value-added softwood lumber
- Structural components
- Hardwood lumber
- Hardwood flooring
- Prefabricated houses
- **Wood pellets (5)**
  - since december 2010

Quebec Wood Export Bureau (QWEB)

Working for the Quebec's wood products industry.

Our goals

- Consolidate existing markets by increasing the consumers' confidence in our members' commitment to assure the reliability, continuity and quality of the exported products.
- Make an inventory of new markets and quantify them.
- Provide our members with the information they need about overseas markets in order to help them determine how they can adjust to these markets.

QWEB Pellets' group

Quebec Wood Export Bureau

Our objective

- To implement measures that will promote the growth of the wood pellets' markets in and outside Québec…

Our action plan

- Increasing domestic's consumption of pellets.
- Positioning wood pellets as a renowned source of renewable energy.
- Implement measures that will assure market access for this business line.

➤ Canada, U.S and Europe

Eastern Canadian Wood Pellet situation

Agenda

(1) Eastern Canadian Domestic Market Overview
(2)Eastern Canadian Logistics Project
(3) The Quebec Situation

Quebec Wood Export Bureau

Canada Wood Produits de bois canadien

Eastern Canadian Domestic Market Overview

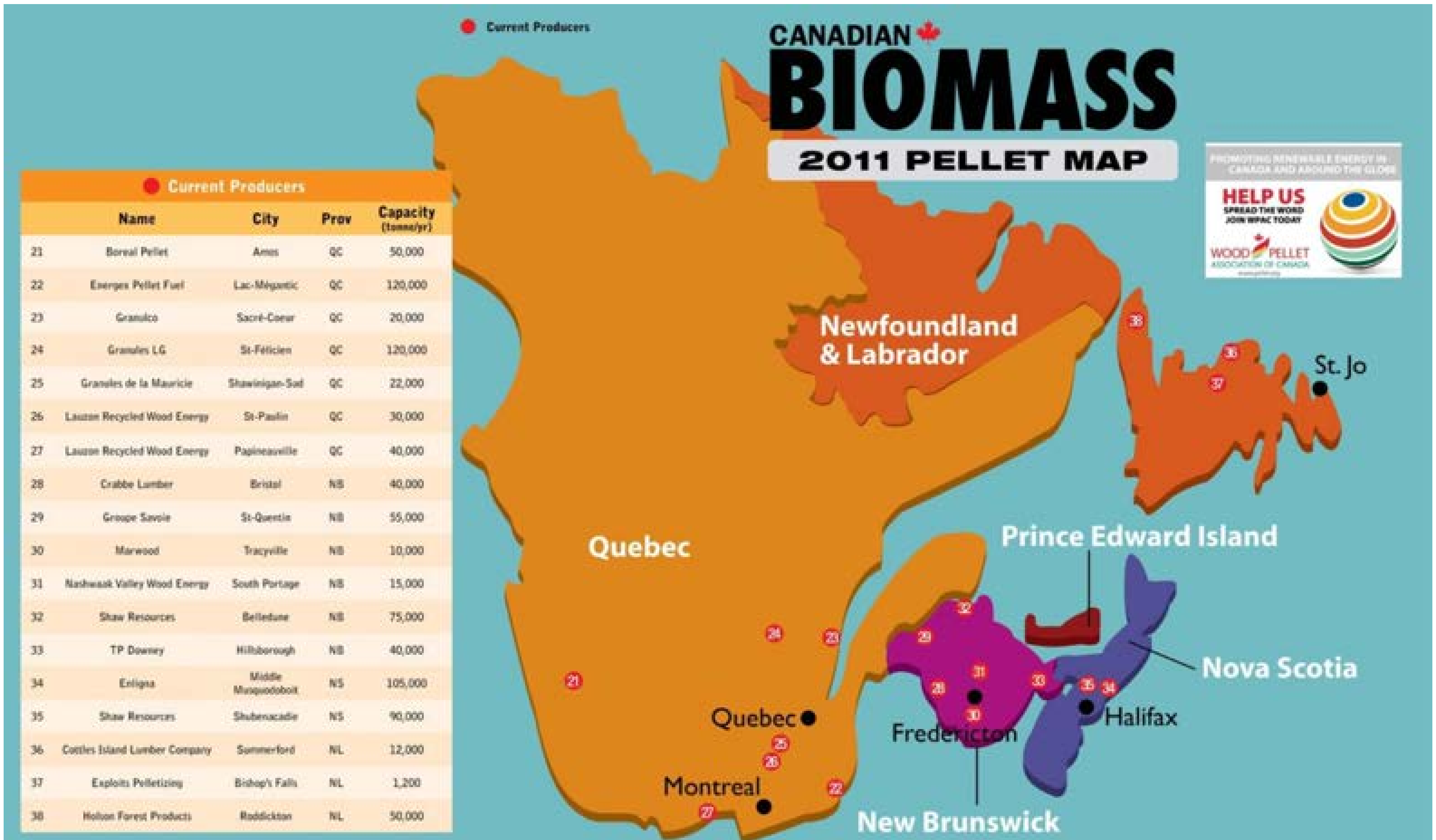
Source : propellet France

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Existing Eastern Plants



Current Producers

	Name	City	Prov	Capacity (tonne/yr)
21	Boreal Pellet	Amos	QC	50,000
22	Energex Pellet Fuel	Lac-Mégantic	QC	120,000
23	Granulco	Sacré-Coeur	QC	20,000
24	Granules LG	St-Félicien	QC	120,000
25	Granules de la Mauricie	Shawinigan-Sud	QC	22,000
26	Lauzon Recycled Wood Energy	St-Paulin	QC	30,000
27	Lauzon Recycled Wood Energy	Papineauville	QC	40,000
28	Crabbe Lumber	Bristol	NB	40,000
29	Groupe Savoie	St-Quentin	NB	55,000
30	Marwood	Tracyville	NB	10,000
31	Nashwaak Valley Wood Energy	South Portage	NB	15,000
32	Shaw Resources	Belledune	NB	75,000
33	TP Downey	Hillsborough	NB	40,000
34	Enligna	Middle Musquodoboit	NS	105,000
35	Shaw Resources	Shubenacadie	NS	90,000
36	Cottles Island Lumber Company	Summerford	NL	12,000
37	Exploits Pelletizing	Bishop's Falls	NL	1,200
38	Holson Forest Products	Roddickton	NL	50,000

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Existing Eastern Plants : Annual pellet production capacity

February 1, 2012 – tonnes

	Plants	Average Production	Largest	Total (tonne)	%
Eastern Canada	23	58 000	130 000	1.0 M	36%
Total Canada	40	79 000	400 000	2.9 M	100%

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Wood pellet fibre sources

Source : WPAC

- Sawmill residues (90%) or logging residues/natural disturbance (10%)
- Locally sourced
- Species : softwood and hardwood
- Supply can be sometimes difficult and at high cost: downturn of the primary forest industry

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Ontario: Timber Awarded for Pellet Manufacturing

- Wood supply competition process mid 2011
- 8.5 million m^3 of unused annual cut available in the competition
- Substantial volumes awarded to proposed pellet operations
- Estimated total pellet capacity: 2 to 4 million tonnes per year
- Change in markets to be expected (export ? / domestic ?)

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Ontario: Latest Timber Awarded for Pellet Manufacturing

Company	Annual Timber Award – m^3
KD Quality Pellets	90,000
Wagner Forest Management	133,500
White Sand First Nation	149,000
Wawasum Corporation	113,000
Woodville Pellet	56,500
Muskoka Timber Mills	101,200
Atikokan Renewable Fuels	179,000
Abitibi Bowater	219.000
Total	1,041,200

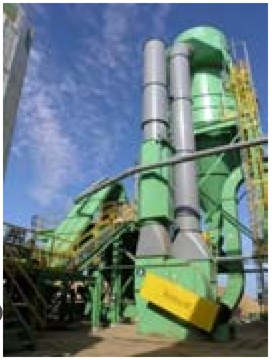
Sources: Working Forest and Ontario MNDMF

11

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Characteristics of the production



- Plants and production capacity of small to medium size.
- 40lbs bag and bulk (negligible)
- Fiber available but high cost
- Ontario: small production capacity at the moment but majo developments ahead
- Plant Operating rate: 50%
- Strong development in wood supply : Ontario and Québec

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Markets : the current status


Source : Osburn

- Our major markets – heating : domestic and New-England
- Very few export to Europe
- Power market non-existent (95% hydro in Québec)
- Strong competition (electricity, oil, gas ...) + Wide infrastructure for distribution
- Foreign competition (United States!)
- Exchange rate
- Lack of development of delivery systems in bulk for residential market
- Lack of political will to convert… but hope ahead.
- Lack of information on Canadian markets.

13

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

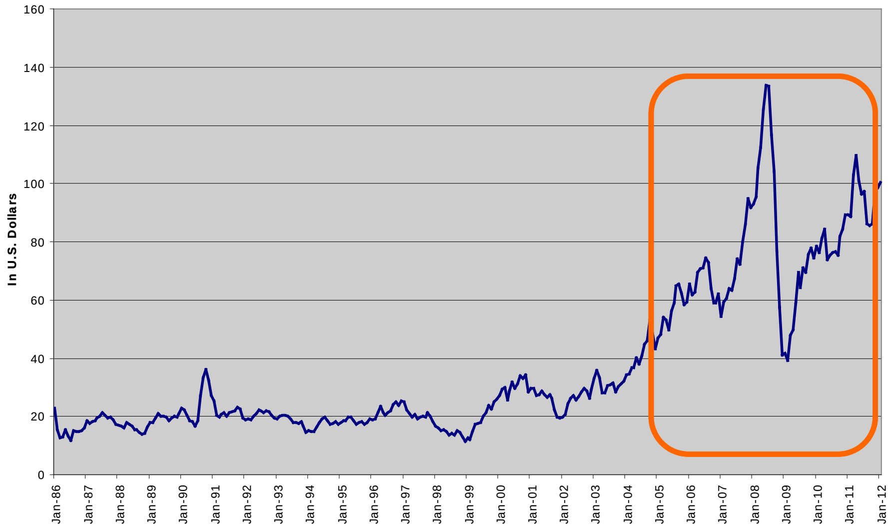
Markets : our focus on United-States/New-England

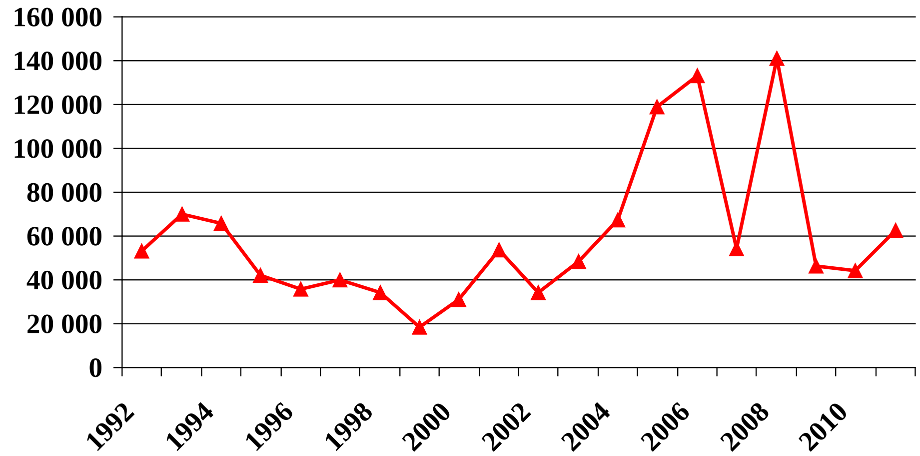
- Cost competitive in areas not served by natural gas (northern US)
- Approximately 1.6 million U.S. households (1.5%) own a pellets facility
- Sales of approximately 60,000 units / year (2011)
- 52% of sales are in the northeast United States.
  - 30,000 units/year compare to 50,000 units sold in Canada since 2000.
- The power market is currently inexistent
- Delivery systems in bulk for residential

Source : Pellet Fuel Institute

Eastern Canadian Domestic Market Overview

USA : pellet stoves sales coincide with the rising price of fossil fuels





Source : Pellet Fuel Institute

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Markets : Eastern Canadian Logistics Are Challenging

- Small plants – average 55,000 tonnes/year compared to West at 150,000 tonnes/year
- Road transport, long distance = high cost
- Belledune + TR only active terminal
- Just 2 of 21 plants exporting
- Long Ontario distances. Great Lakes !
- Fragmentation of production makes shipping difficult
- Challenge: create a grouping of production to facilitate export.
- Production and exports expected to increase
- Shipping advantage to EU (5,000 km)

1.

Eastern Canadian Domestic Market Overview

Quebec Wood Export Bureau

Summary

- ❑ Markets dominated by the residential / stoves
- ❑ Our conventional markets are limited
- ❑ Fiber availability advantage / Fiber price disadvantage
- ❑ Overcapacity in production
- ❑ More than 500,000 tonnes available for export or domestic markets

- ❑ We need/want to develop locally : boilers !
- ❑ We are keeping an eye on export and are trying to facilitate transport and logistic

Source : propellet France

The Quebec Situation

Source : propellet France

2.

The Quebec situation

Quebec Wood Export Bureau

Markets : the current status

- Annual pellet production capacity in Quebec (February 1, 2012)
  620 000 tonnes
- Plant Operating rate: 50%
- Markets: 40 % domestic – 60 % export (U.S)
- Development in the last two years: high interest when high oil price
- Pellet prices are very competitive compared to fossil fuels
  - Pellets 12,83 $/GJ
  - Natural Gas 13,94 $/GJ (commercial)
  - Light Oil 30,52 $/GJ

  Source : Écoressources
- Pellet prices are stable : 1990-2010 average annual increase for various fuels
  - Pellets 2,14 %
  - Natural Gas 5,06 % (commercial)
  - Light Oil 6,69 %

  Source : Écoressources

The Quebec situation

Build on our strengths and go forward

- Residential heating : slow progress
  +/- 70 000 to 80 000 tonnes / year
  Government incentive
- Commercial / institutional sector heating : Amazing market possibilities
  - Slowly but surely
  - Beginning of a movement - Structuring the sector
  - Break into unconventional environments (agriculture, maple sugaring industry, etc.)
  - Collaboration with NGO and key players

Source : Okofën

Source : CDL Dallaire

2.

The Quebec situation

Challenges ahead

- Raise awareness of this energy option to potential users (information program and communication).
- Receive government support (financial or otherwise) : energy independence and fight against climate change.
- Establish a network of professionals.
- Positioning wood pellets as a renowned source of renewable energy.
- Work on logistic and try to reduce our transportation costs.
- Ensure the quality of our products (Certification).
- Get access to cheap raw materials.

2.

The future is here

Quebec Wood Export Bureau

La Cité verte – Quebec city

- District heating system with biomass the most advanced in North America
- 800 housing units: condominiums, townhouses
- Meets the needs of heating and domestic hot water
- 4 Viessmann boilers with an output of 1250 kW each in a cascade system of 5 MW.

Source : Viessmann

Eastern Canadian Logistics Project

Source : propellet France

Eastern Canadian Logistics Project

Quebec Wood Export Bureau

Context

- The European wood pellets market is growing. It is expected to continue.
- There is few pellet producers in eastern Canada that are exporting to the biggest market in the world.
- Logistical issues surrounding exporting pellets to Europe are considered to be partly responsible for this situation.

In this context, QWEB and WPAC wishes to get a study on the supply and production of wood pellets in order to implement an efficient supply chain to Europe.

3.

Eastern Canadian Logistics Project

Quebec Wood Export Bureau

Objectives

- ❑ Analyze the supply chain of wood pellets in eastern Canada.
- ❑ Increase the competitiveness of producers in Ontario, Quebec and the Maritimes on export markets in establishing an efficient supply chain.
- ❑ Answer some critical questions p.e. what are the strategies to adopt ?

- ❑ Transportation specialist hire recently :

CPCS TRANSPORTATION STRATEGY CONSULTANTS

Deadline : Spring 2013

Quebec Wood Export Bureau

For more info

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WOOD PELLET
ASSOCIATION OF CANADA

CPCS

Supply, Logistics and Export Strategies for Wood Pellets Produced in Eastern Canada

WPAC AGM

Solutions en croissance

Jean-François Arsenault
November 28, 2012
Québec

Outline

- Introduction to CPCS
- Our Understanding of the Project
- CPCS team for the Project
- Work plan
- Approach and Methodology
- Timelines

CPCS | Solutions en croissance

Introduction to CPCS

CP Rail

Canadian Pacific Consulting Services (CPCS) is created as the consulting branch of CP, based in Montreal.

CPCS Limited

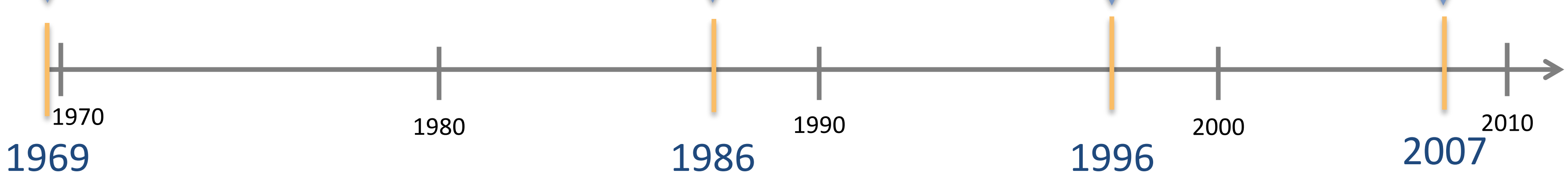
Management buyout. CPCS Limited becomes independant from CP.

CPCS Transcom

CPCS Limited merges with the transport division of Hickling (Hickling Transcom). CPCS Limited becomes CPCS Transcom, with headquarters moved to Ottawa.

CPCS

CPCS Transcom is re-branded CPCS. The North American division is created.



Introduction to CPCS

Public sector clients include municipal, provincial and federal governments, as well as many national and international agencies. Our private sector clients include port operators, railways, shippers and other logistics providers. We also work alongside private and equity investors . A short list of some of our clients is shown below.

Gouvernements	Institutions Financières Internationales	Secteur Privé	Associations Sectorielles
Transport Canada / Transports Canada	IFC International Finance Corporation World Bank Group	xstrata	Railway Association of Canada
TRB Transportation Research Board of the National Academies	The World Bank	Barrick	Canadian Shipowners Association
Transports Québec	IDB Inter-American Development Bank	EnCana	Association of Canadian Port Authorities The leading voice of Canadian ports
Ontario Ministry of Transportation	African Development Fund / Fonds Africain de Développement	Brookfield	
Kingdom of Saudi Arabia Ministry of Transport	ADB	Port of Montreal / Port de Montréal	
		CN	

CPCS Team

Marc-Andre Roy
Project Director

Jean-Francois Arsenault
Project Manager

Other resources
Modal Specialists

Jean-Francois Pelletier
Senior Transport Analyst

Éric Seguin
GIS Analyst

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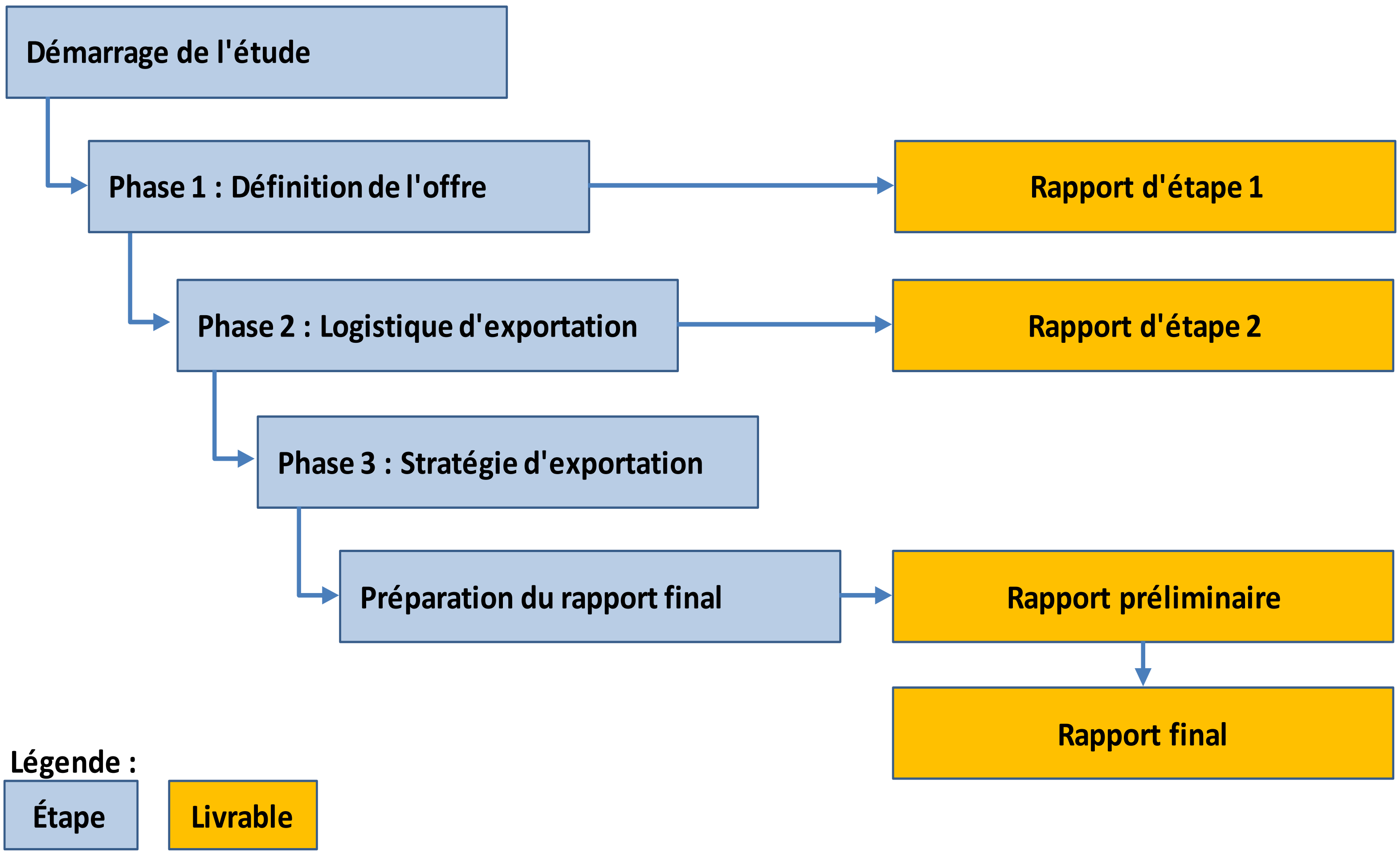
Optimizing Export Logistics to Europe

Context: The European market for wood pellets has grown significantly over the last few years, and growth is expected to continue in the short to medium term. Yet, Eastern Canada pellet producers are barely active in that market at this time. Logistical constraints faced by producers wishing to export to Europe are felt to be a major contributing factor to this situation.

Objective: To analyze supply and export transport chains for pellets produced in Eastern Canada as to help implement an efficient and optimized supply chain going forward.

Result : Provide preliminary strategies and related actions necessary related to transportation to improve the competitiveness of wood pellet producers on European markets.

Work Plan



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Key Questions

- **What is the production capacity of Eastern Canada wood pellet producers?**
- **What networks and infrastructures can serve the export-oriented wood pellet producers?**
- **What transport and supply chain strategies must be adopted to improve the competitiveness of wood pellet producers for European markets?**

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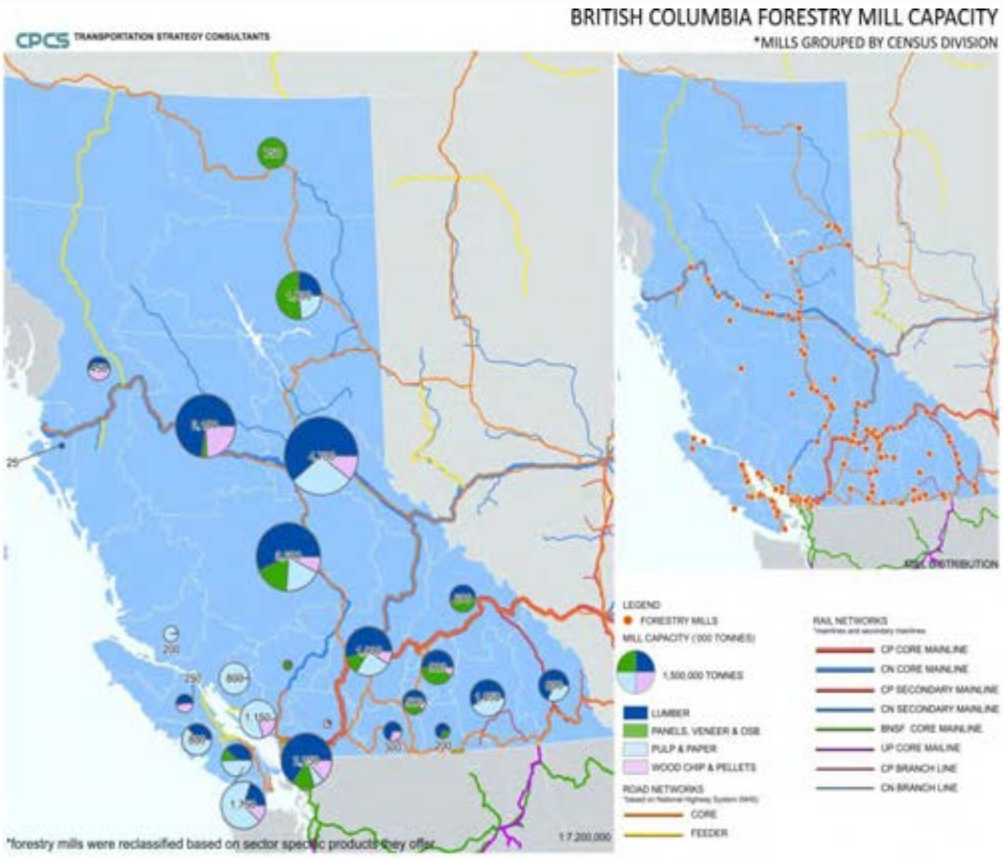
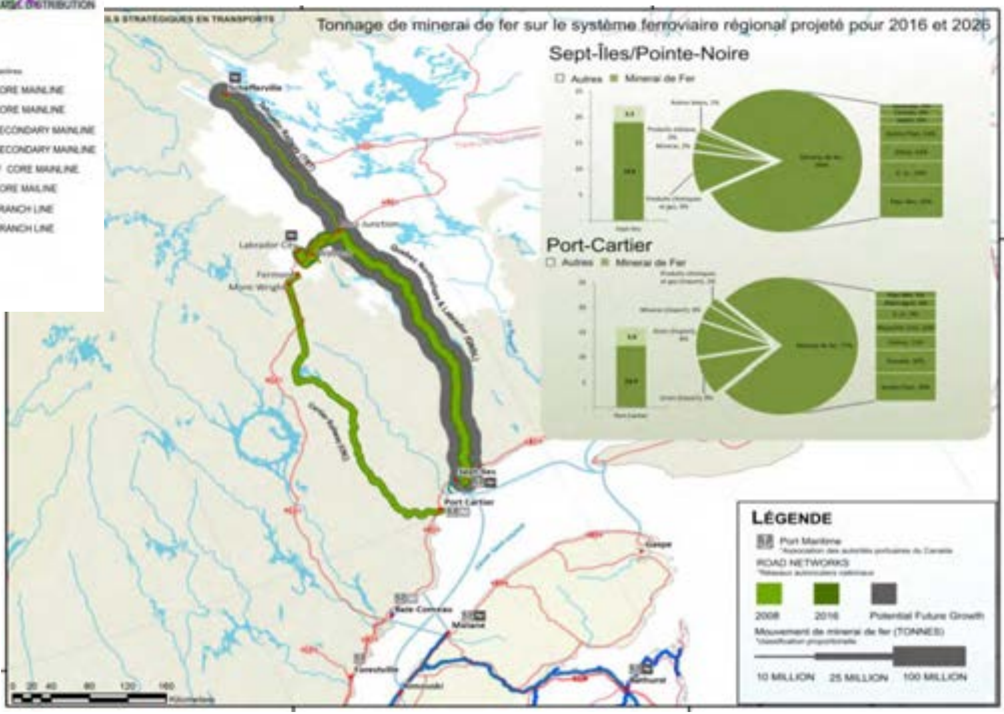
Key Aspects of our Methodology – Industry Data

- Production and Supply
  - Primary data to be provided by QWEB, WPAC and their members and partners
- Consultations with key supply chain players
  - Producers
  - Carriers
  - Stevedores
  - Port Authorities

Key Aspects of our Methodology – GIS





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Timelines

- Working Paper 1 on Production and Supply: before Christmas
- Working Paper 2 on Logistics: mid-January
- Draft Final Report: Early February

Questions & Discussion

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Principal
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