



# ***All Business - No Waste***

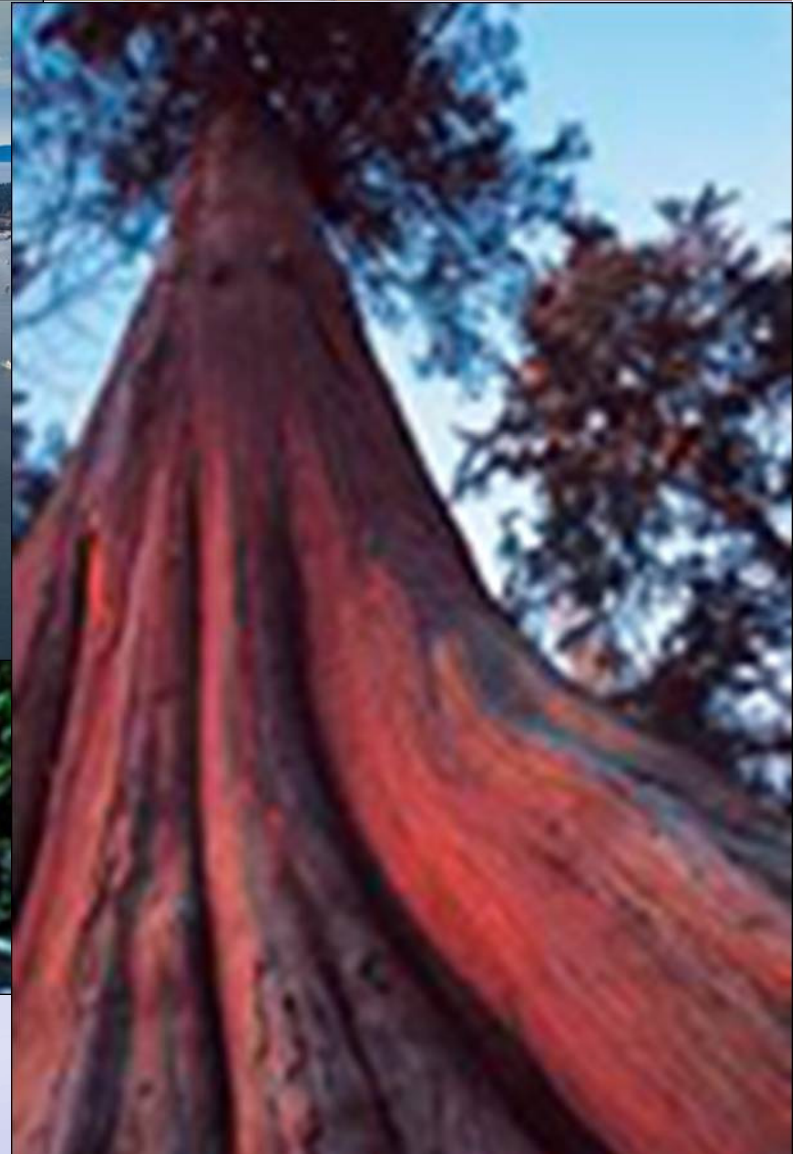
Extended Producer Responsibility  
in British Columbia, Canada

by David Lawes & Teresa Conner  
BC Ministry of Environment  
September 2011



BRITISH  
COLUMBIA  
The Best Place on Earth

Ministry of  
Environment



# British Columbia Facts

- Population: 4.5 M
- Half the population lives in Metro Vancouver
- GDP \$197.9 Billion
- Top 3 exporting partners:
  - 1. U.S. (49.9%)
  - 2. Japan (13.6%)
  - 3. China (10.2%)





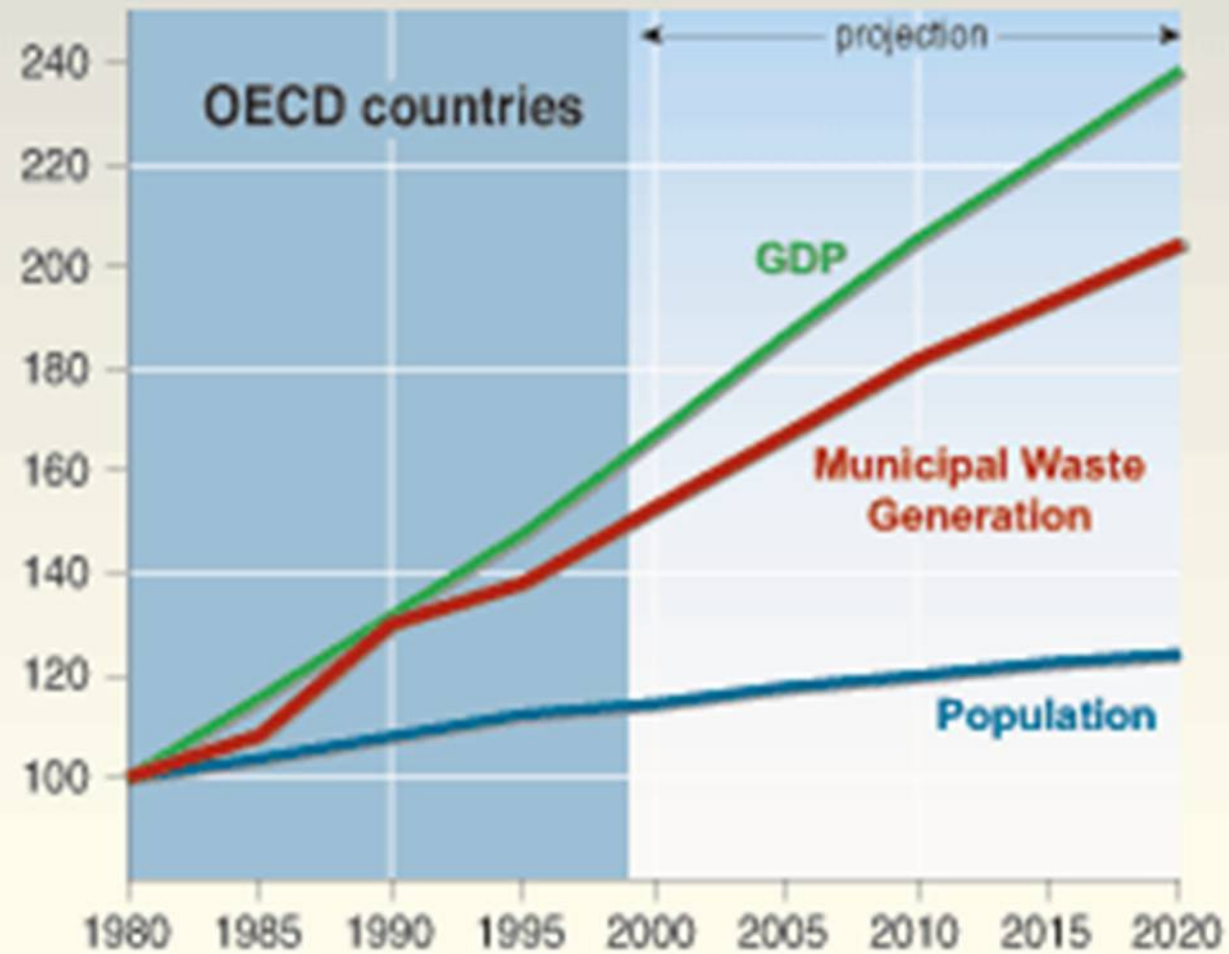


# The problem with waste...

- We make too much of it....
  - Per capita waste generation increasing
  - Population increasing
- Expensive to manage for local governments with very little influence over inflow
- Long-term liability
- Drain on the economy; expensive for businesses

## The richer we get, the more we discard

Index 100 in 1980



Source: OECD, 1999.

**“Change does not  
happen by consensus”**

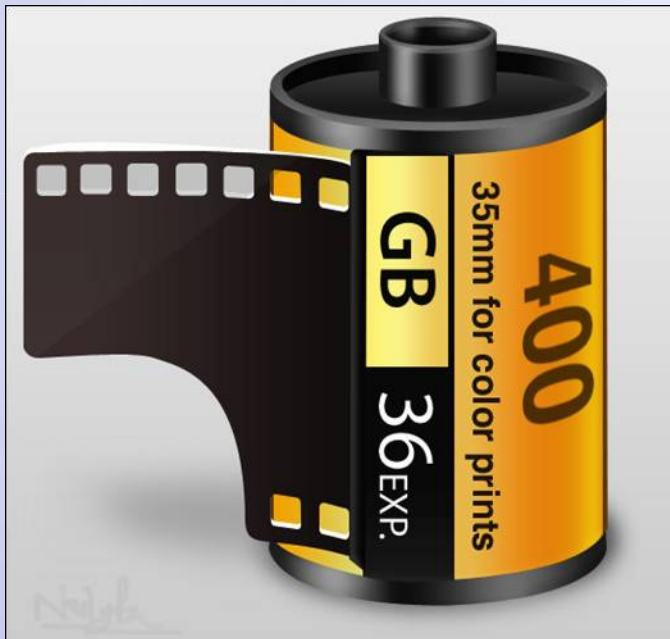
**“If you don’t like change  
- then you will like  
irrelevance even less”**

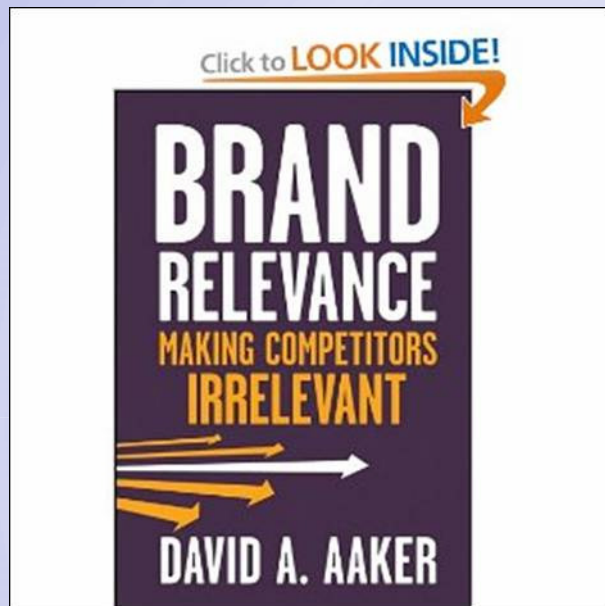
# Consumers are changing...





# More consumer change...






**“.....brands often decline, not because they have lost their ability to deliver or the loyalty of their customers, but because they have become less relevant.”**

# More consumer change...





# Extended Producer Responsibility in BC

- BC Recycling Regulation - requires producers to collect and recycle the products that they make and sell.
- Provides producers with a financial incentive to make and sell products that :
  - are more **durable, reusable** and **recyclable**
  - contain **less toxic material**
  - **never become waste.**





# Who is the Producer?

Manufacturer

Brand-Owner

Importer

Retailer



3M



SONY®



Firestone



hp



Enjoy  
Coca-Cola  
Trade-mark ®



WAL★MART®



THE  
HOME  
DEPOT®



# Current Programs

1. Paint (1994)
2. Pesticides (1996)
3. Gasoline (1996)
4. Solvents and flammable liquids (1996)
5. Pharmaceuticals (1996)
6. Beverage Cont. (1997)
7. Lubricating Oil (2003)
8. Tires (2007)
9. TV's, Computers (2007)
10. Batteries (2009)
11. Cell phones (2009)
12. Audio Visual (2010)
13. Thermostats (2010)
14. Fluorescent lamps (2010)
15. Car batteries (2011)
16. Smoke Detectors (2011)
17. Antifreeze (2011)
18. Small Appliances (2011)



# Upcoming Programs

1. Electric/electronic tools (July 2012)
2. Automatic dispensers (July 2012)
3. Lighting Equipment (July 2012)
4. E-Toys (July 2012)
5. IT telecom. equipment (July 2012)
6. Monitoring/control Equip. (July 2012)
7. Packaging and Printed Paper (2014)



## Benefits – *as of 2008...*

### Economic Impact of BC Recycling Regulation (2008) *by Gardner Pinfold Consulting Economists*

- **2100** jobs created
- Reduced landfill costs (short and long term)
- Reduced GHG`s
  - 5.3 million gigajoules of energy saved each year
  - equivalent to 72,950 passenger cars removed from the roadway each year





# Canada-wide Action Plan for EPR (2009)

Provides all provinces and territories with a harmonized set of principles and a common schedule of products

## Phase 1 (by 2015)

- packaging and printed materials,
- electronics and electrical
- mercury-containing products (including lamps),
- household hazardous and special wastes, and
- automotive products

## Phase 2 (by 2017)

- construction and demolition materials
- furniture, textiles and carpet
- appliances (including ODS)



Pacific Coast  
COLLABORATIVE

**Leadership now**  
for a sustainable tomorrow



Alaska  
British Columbia  
California  
Oregon  
Washington

- Combined population of 52 million and a GDP of \$2.5 trillion.
- 7th largest economy in the world – by 2030 this Pacific Coast economy will surpass \$4 trillion.
- In November 2010, PCC leaders announced a new initiative to collaborate on Marine Debris and Product Stewardship. British Columbia, California, Washington, Oregon are working together to share Product Stewardship information and expertise.

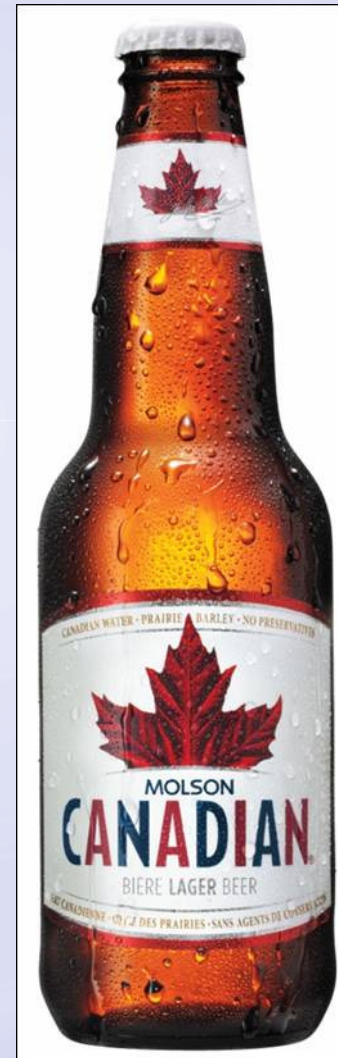


# The Future.....

- Magnify the financial incentive to producers
  - Landfill bans from local governments
  - EPR program performance improvement
  - Expanded market size subject to EPR laws
- Closed Loop Supply Chains
  - Producers shift from sellers of products to service providers
  - Sell the benefit of the product versus the product itself

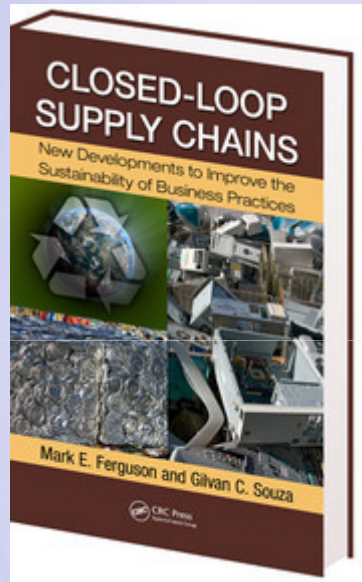
# Beer

- 2010 Return Rate 94%
- Bottles reused 15 times on average
- Cost approx. 60% less to reuse bottles versus make from new material





# Research on CLSCs



## **Closed Loop Supply Chains: New Developments To Improve The Sustainability Of Business Practices**

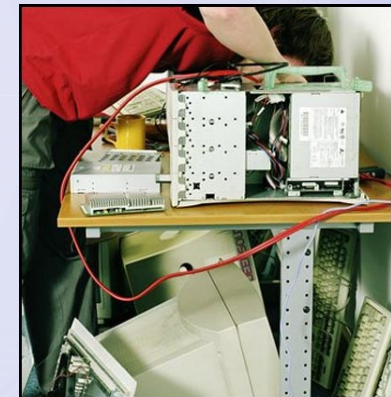
**Published April 2010**

by **Mark E. Ferguson**  
**Gilvan C. Souza**

# IBM Global Asset Recovery Solutions

## Some Figures:

- Annual collection volume > 1M machines
- 85% reutilized, refurbished, resold
- Annual end-of-life + waste volume processed > 50,000t
- Annual recycling volume > 18,000t
- Billions \$ of revenues from equipment, parts, and material sales



# Caterpillar: Remanufacturing Division

## Remanufacturing Business Model:

- 200 dealers keep close tab on customers
- Customers get 50% discount for returning an old part
- Receives about 2M old parts per year
- Approximately \$2B in sales in 2007
- The remanufacturing division is Caterpillar's fastest growing division



# Retreaded Tires (Commercial Fleets)

<i>Dimension</i>	<i>Practices</i>
<i>Technology of reman. products</i>	<b>Same as new products</b>
<i>Use of reman. products</i>	<b>Same as new products: full replacement for new tires</b>
<i>Pricing of reman. products</i>	<ul style="list-style-type: none"> <li>• <b>Fee for service (contract): \$/mile on the road</b></li> <li>• <b>Retail: 45-75% off price of new tire</b></li> </ul>
<i>Sources of returns</i>	<b>Automatic upon a tire replacement (However, tires can be retreaded only 2 to 5 times)</b>
<i>Remanufacturing cost</i>	<b>About 25% of the cost of a new tire</b>
<i>Competitive landscape</i>	<ul style="list-style-type: none"> <li>• <b>Many retreaders who use retreading technology licensed by OEMs (Michelin, Bridgestone, Goodyear)</b></li> <li>• <b>OEMs have a small direct participation on market</b></li> </ul>



# Why packaging and printed paper?

---

## Public discontent

- 262 letters to Minister last 5 yrs;
- 20,000 inquires to provincial recycling hotline (2010)

## Local government demand

- 20-30% (by weight) of landfill despite longstanding curbside programs
- Increasing costs
- Landfill/ incinerator citing issues

## Canada-wide Commitment

- by 2015

# What is Packaging?

---

*"a material, substance or object that is (a) used to protect, contain or transport a commodity or product, or (b) attached to a commodity or product or its container for the purpose of marketing or communicating information about the commodity or product"*

– BC Environmental Management Act



# What is Printed Paper?

---

*“paper that is not packaging, but is printed with text or graphics as a medium for communicating information, and includes telephone directories, but does not include (a) other types of bound reference books, (b) bound literary books, or (c) bound text books.” — BC Recycling Regulation*



**All Packaging and Printed Paper**



**Question: Where is it discarded?**



**At Residential Homes, Multi-Family Apartments, Public Spaces, Municipal Street Containers, etc.**



**Must have a plan**



**At Institutional, Commercial & Industrial facility**



**Managed by facility**

# Who is the Producer?

---

## Multi-Materials BC:



**Canadian Restaurant and  
Foodservices Association**



**....and there may be others**



# Performance Measures

---

- Product Recovery Target(s)
- Collection System
- Consumer Awareness
- Collection system costs
- Stakeholder Consultation Expectations
- Dispute Resolution
- Product Life Cycle Management
- Pollution Prevention Hierarchy



# Local Government Role

---

- Provide facilities or operational services
- Educate the public
- Assist with land use barriers & business licences
- Impose landfill bans
- Work with Product Stewardship Council



# Important Dates

---

- May 2011: Packaging and Printed Paper added to Recycling Regulation
- October 2011: MOE-led public meetings
- Spring 2012: Producer-led consultations (TBA)
- November 2012: Stewardship plan submission
- May 2014: Stewardship program implementation

Updates on meetings and consultations are being hosted by RCBC [www.rcbc.bc.ca/education/product-stewardship/packagingepr](http://www.rcbc.bc.ca/education/product-stewardship/packagingepr)

For further information on Multi Materials BC please contact [alangdon@retailcouncil.org](mailto:alangdon@retailcouncil.org)

For further information on packaging EPR policy contact [Teresa.Conner@gov.bc.ca](mailto:Teresa.Conner@gov.bc.ca)

General information on EPR in BC can be found at [www.recycling.gov.bc.ca](http://www.recycling.gov.bc.ca)