

Current Environmental Trends

Where Does Pollution Prevention Fit In?



MEIA Breakfast Forum: October 26th, 2006

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Canadian Centre for Pollution Prevention

Trends

5 Mega Issues:

- Climate Change
- Pollution and Health
- Globalization Backlash
- Energy Crunch
- Erosion of Trust

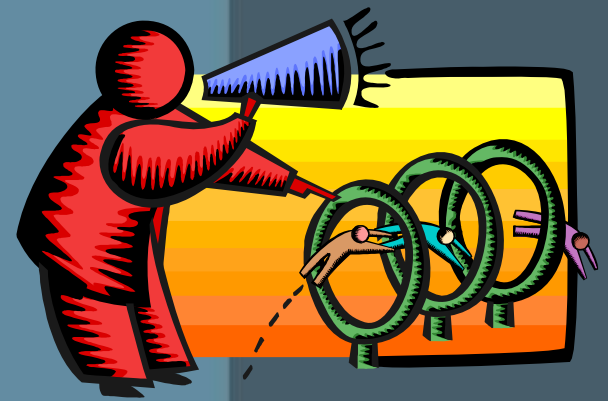


Source: Bob Willard, The Sustainability Advantage

Trends

5 Demanding Stakeholders:

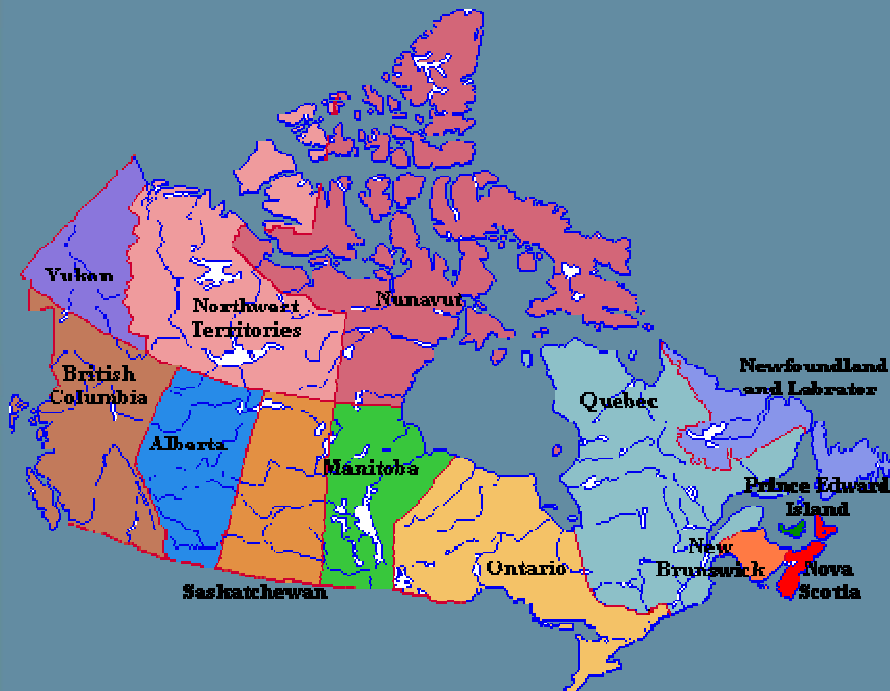
- Awakened Customers
- Activist Shareholders
- Civil Society / NGOs
- Government Regulators
- Financial Sectors



Source: Bob Willard, The Sustainability Advantage

Trends

Ecological Footprint



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Canada's consumption

4 earths

Where are we? Where do we want to be?

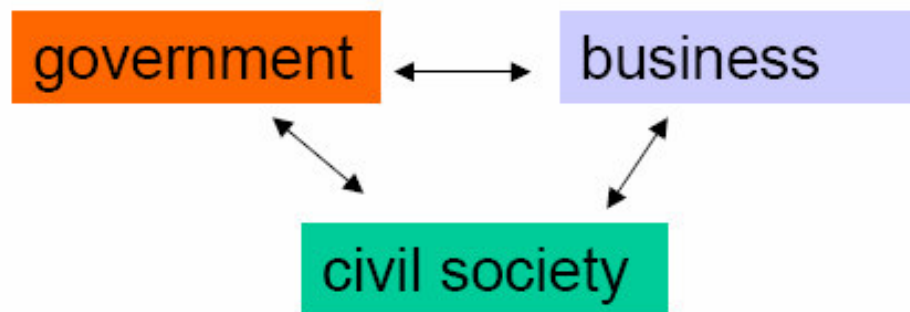


we all have a part to play...

Change Agents

- Mandate or encourage change
- Educate and inform
- Change purchasing practices (adopt EPP policies)

- Change purchasing, production practices
- “Green” the supply chain
- Influence govt. action, consumer behavior



- Change purchasing behavior
- Influence production decisions
- Influence gov't. action

What is the overall trend?



Increased complexity of environmental issues

What are the implications?

Need for integrative
approaches



“The great thing in the world is not so much where we stand, as in what direction we are moving.”

-Oliver Wendell Holmes

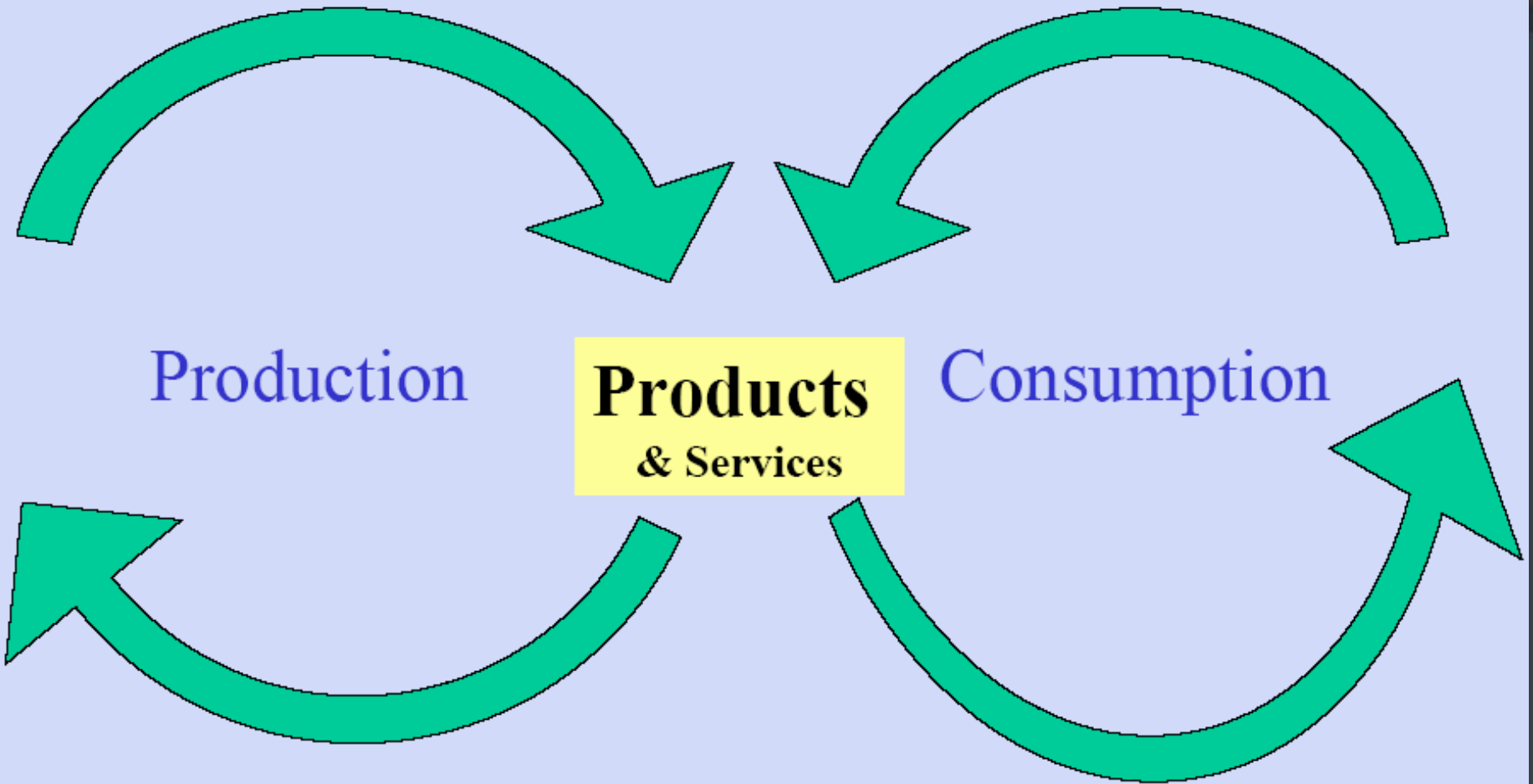


Pollution Prevention

“The use of processes, practices, materials, products or energy that avoid or minimize the creation of pollutants and wastes, at the source.”

Canadian Council of Ministers of the Environment

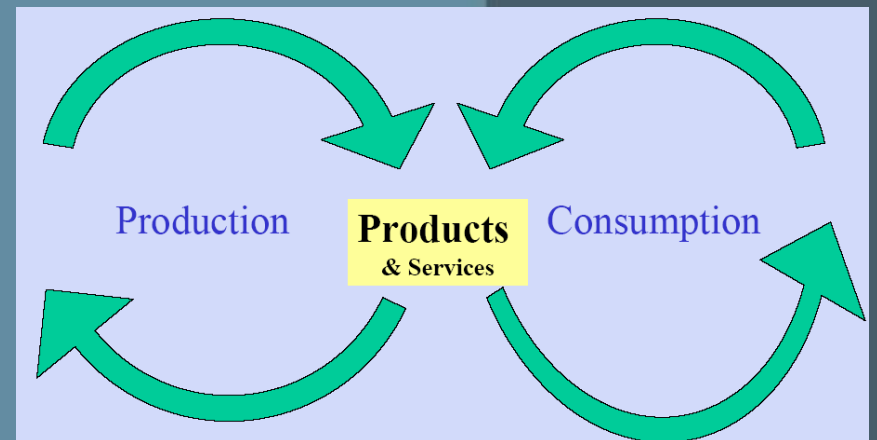




Where does P2 fit in?

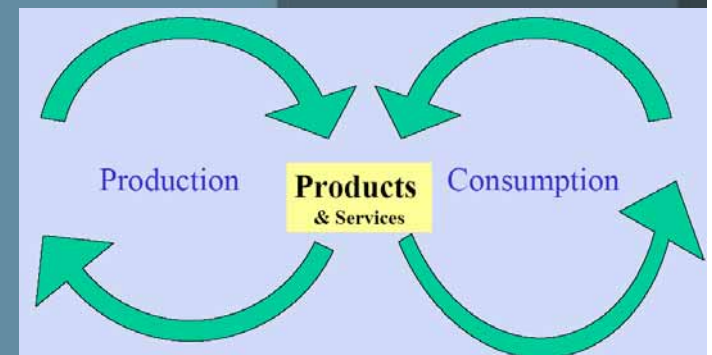
P2 and Sustainable Production

- P2 techniques and practices:
 - Substances of concern
 - Efficient use and conservation of natural resources
 - Material feedstock substitution
 - Product design/reformulation
 - Process Changes
 - Training
 - Reuse & Recycling On-site
 - Purchasing techniques
 - Equipment Modifications
 - Operating Efficiencies



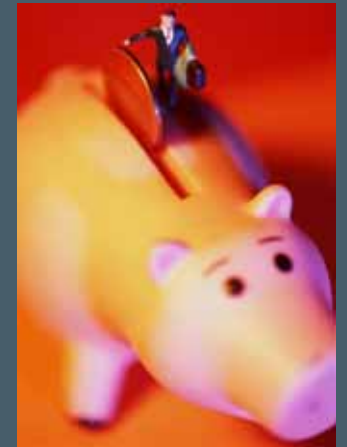
P2 and Sustainable Consumption

- P2 is about making smart choices:
 - What we buy
 - How we use products
- The less you purchase, the less waste and pollution you create, and the less energy and resources you consume
- Buy Smarter:
 - Lifecycle of products



Multiple Benefits

- Reduced Costs and Cost Avoidance:
 - Energy/Water, material inputs, waste disposal
- Easier compliance or compliance avoidance
- Improved Health and Safety
- Improved Air Quality
- Improved Public Image /Brand
- Improved Community Health





Canadian Centre for Pollution Prevention

Leaders in Shaping the Future of Consumption and Production



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A recognized leader in pollution prevention, the Canadian Centre for Pollution Prevention (C2P2) encourages actions that avoid or minimize the creation of pollutants and waste, to foster a healthier environment and a sustainable society.

C2P2 services are possible through the generous support of our sponsors.



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The Canadian Centre for Pollution Prevention is a member of:



*Pollution Prevention
World Information Network*

How does C2P2 fit in?

- **Training:**
 - P2 Planning
 - Other practical P2 tools
- **Program Support:**
 - Building the business case for P2
 - Strengthening linkages between sustainable production and consumption



How does C2P2 fit in?

- **Encouraging Information Sharing and Dialogue:**
 - C2P2 information services and tools
 - Canadian Pollution Prevention Roundtable
- **Recognition of Leadership:**
 - National Awards
 - Success stories

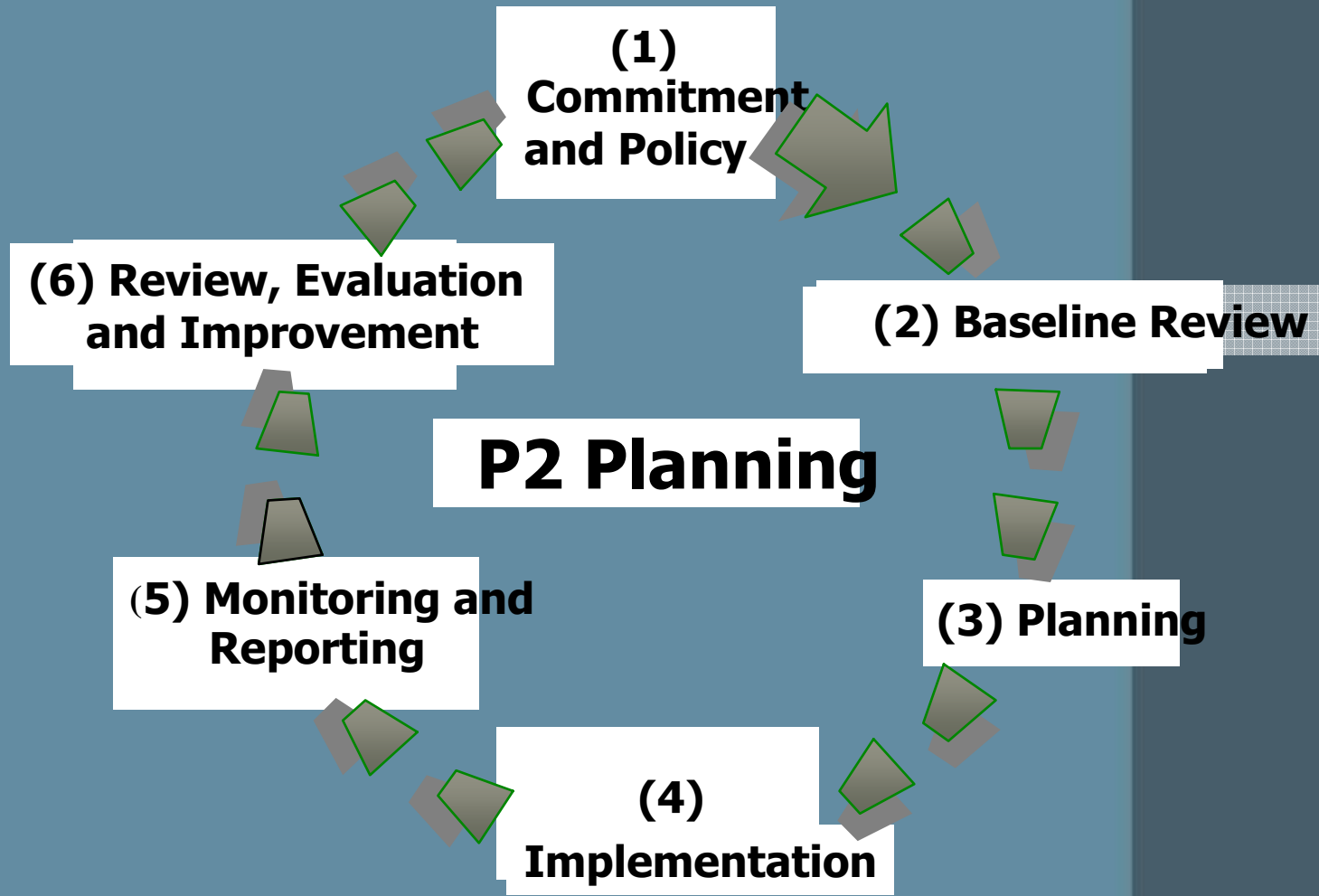


Practical P2

Tools



P2 Planning



Why do a P2 Plan?

- **Required by Federal law:**
 - Canada Gazette Notice to undertake a Pollution Prevention Plan
- **Authority to require P2 Plans under CEPA 1999 include:**
 - Part 4: Preparation and Implementation of P2 Plans
 - Part 7: International Air and Water Pollution
 - Part 9: Federal Government Operations
 - Part 10: Court Orders (violations of CEPA 1999)



CEPA
ENVIRONMENTAL
REGISTRY™

Why do a P2 Plan?

- **Required by Municipal law:**
 - Sewer use bylaws in the GTA

City of Toronto:

- Mandatory P2 Planning across commercial and industrial sectors
- Subject pollutants: 11 heavy metals and 27 organics
- P2 Planning requirements for any industry discharging subject pollutants in any amount



Why do a P2 Plan?

- **Required by industry and government customers:**
 - automotive sector, printing sector, cleaning products
 - ‘Greening Government’ operations initiatives
- **Required by financial/insurance sector:**
 - reduce your operating risks



P2 Planning Course + Certificate

- Created in 2001 by C2P2
- Address the need for trained P2 Practitioners
- Individuals Trained to-date: >250
- Requirements for Certificate:
 - 15 hours training
 - Submit P2 Plan within 8-12 weeks of training
 - Plan reviewed by 3 person review committee
 - Grandfathering clause



Building Support

What's needed to build support for P2?



A solid business case that measures and communicates the value of a P2 project

Building the Business Case

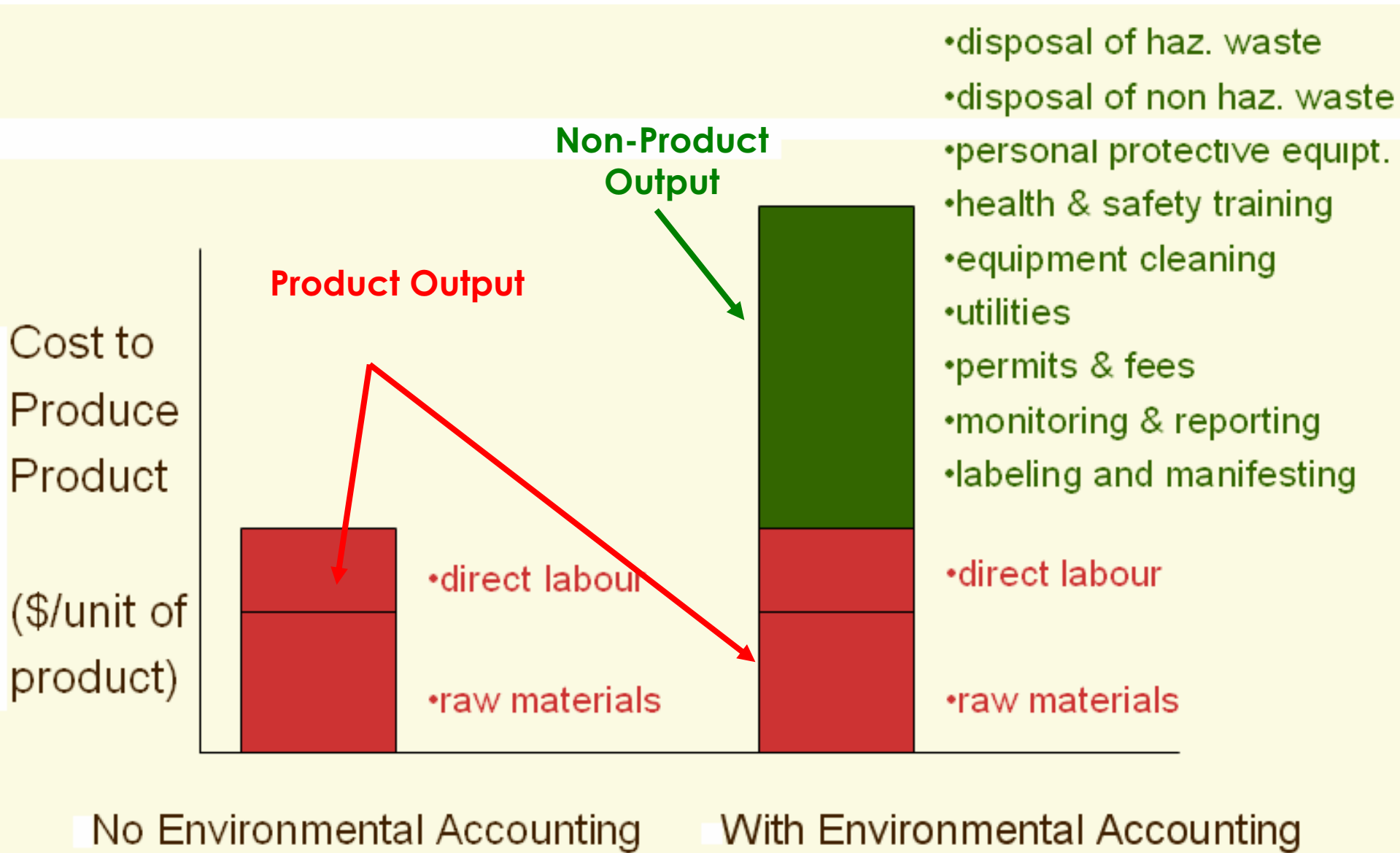
What does a solid business case comprise of?



Environmental Accounting

- EA techniques increase visibility of environmental costs and benefits for use in decision-making
 - Identifying hidden costs and savings
 - Methods of profitability (i.e. payback, NPV)





Identifying Hidden Costs and Savings

◆ ENVIRONMENTAL COSTS

- ◆ disposal of haz. & non haz wastes, spills, leaks
- ◆ personal protective equipt.
- ◆ health & safety training
- ◆ equipment cleaning
- ◆ utilities
- ◆ permits & fees
- ◆ monitoring & reporting

- ◆ labeling and manifesting

◆ WHERE TO LOOK FOR COSTS

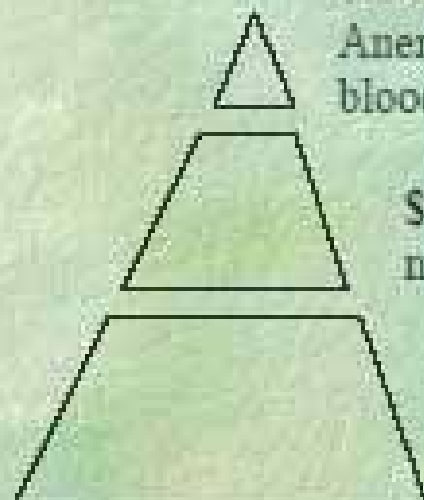
- ◆ Purchasing, Environmental Services
- ◆ Purchasing, Health & Safety
- ◆ Purchasing, Health & Safety
- ◆ Maintenance
- ◆ Purchasing, Physical Plant
- ◆ Purchasing, Administration,
- ◆ Indirect labour costs (% of time), interviews

- ◆ Indirect labour costs (% of time), interviews

How Costs Increase the Further Downstream a Problem is Addressed*



Increasing cost



\$50: Additional cost to buy an Aneroid (instead of mercury) blood pressure cuff

\$513: Clean up cost for broken mercury blood pressure cuff

\$1009: Cost of Incinerator Environmental Control to Remove Mercury Normalized for One mercury blood pressure cuff

*Reference: Mercury Elimination and Reduction Challenge (MERC),
"Mercury in the Health Care Sector:
The Cost of Alternative Products" November, 1996, pp 1424.

Online Training Tool: Environmental Accounting

- Three Tutorials:
 - Introduction to Environmental Accounting
 - Collecting and Identifying Costs and Savings
 - Methods to Calculate Profitability
- Each has the following steps:
 - Slide Show
 - Tutorial
 - Quiz
 - Applied exercise and discussion



Online Training Tool: Environmental Accounting



Wednesday May 11, 2005



Lesson 1
Lesson 2
Lesson 3
Take the Quizzes
Tools/Resources

Lesson 1: Introduction to Environmental Accounting

At the end of this lesson, participants will be able to:

- Outline the benefits of doing Environmental Accounting (EA)
- Describe how EA relates to Financial and Management Accounting
- Describe environmental costs

Ready to get started lesson 1? [\[Click Here\]](#)

Lesson 2: Collecting and Identifying Costs and Savings

At the end of this lesson, participants will be able to:

- Identify the hidden benefits of a P2 project
- Identify the hidden costs associated with not doing a P2 project

Ready to get started lesson 2? [\[Click Here\]](#)

Lesson 3: Methods to Calculate Profitability

At the end of this lesson, participants will be able to:

- Use various methods to calculate profitability
- Perform financial analysis using Environmental Accounting

Ready to get started lesson 3? [\[Click Here\]](#)

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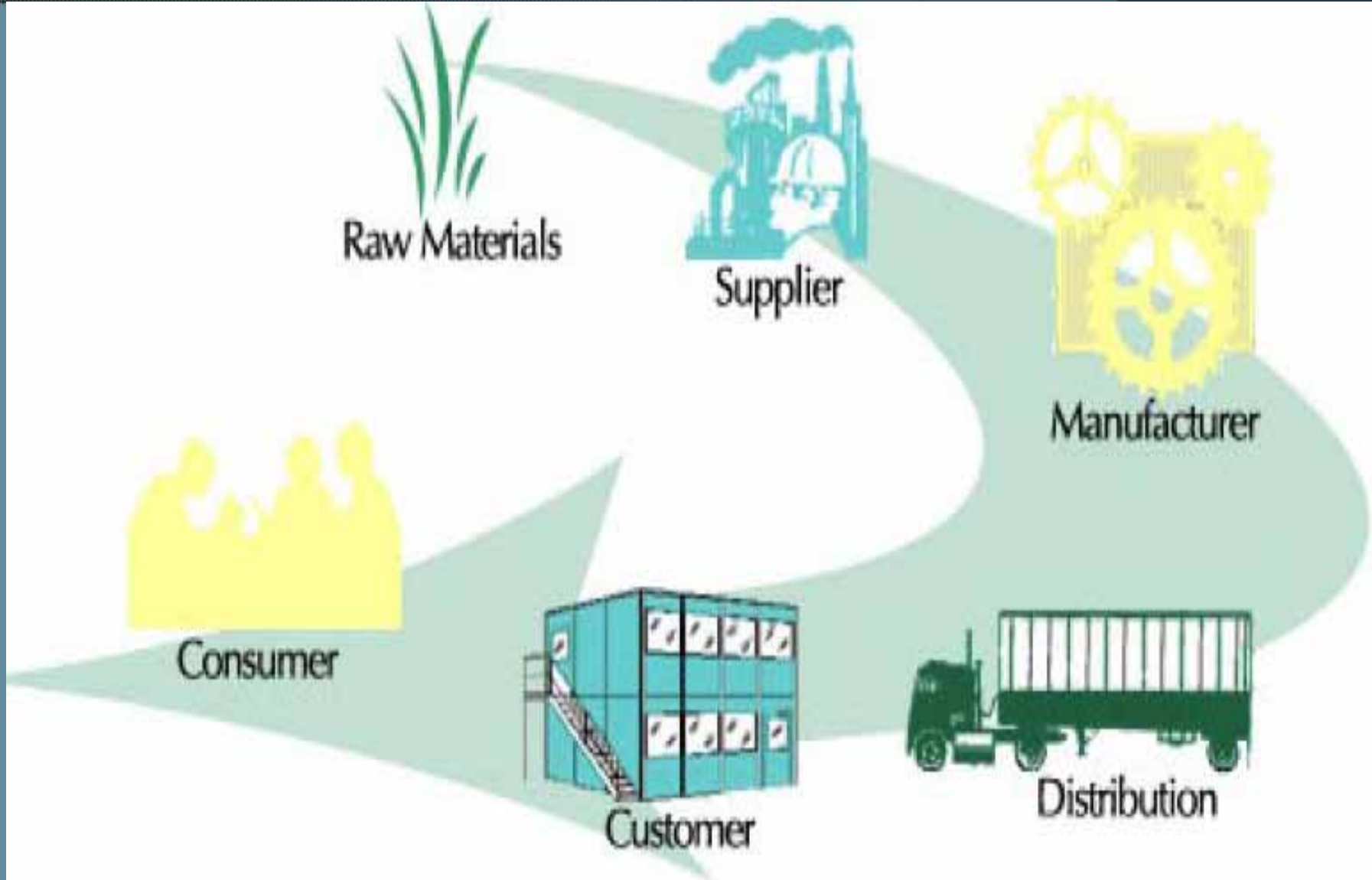


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Greening the Supply Chain



Greening the Supply Chain

- Leverages the relationship between supplier and customer
- Provides tools to assist with environmental improvements
- Participation is free, participants set project deliverables based on time/resources/priorities
- Report back on reductions/efficiencies achieved



Greening the Supply Chain

General Framework:

- Recruitment of large corporation 'Customer' participants
- Identify potential projects for suppliers to engage in (flexible)
- Workshop delivery
- Resource guide development

WRAPP Fund

- **Waste Reduction and Pollution Prevention Fund:**
 - Support funds available for pollution prevention initiatives

Manitoba Conservation

Pollution Prevention Branch

204-945-8443 / 1-800-282-8069 ext 8443

SDIF@gov.mb.ca

11th Canadian Pollution Prevention Roundtable

Winnipeg, Manitoba
June 13, 14 & 15, 2007

*Call for Speakers:
December 16, 2006*



Photo courtesy of Destination Winnipeg/Juncatta International

2007 CCME Pollution Prevention Awards

- **Deadline for applications:**
November 30th
- **Various categories:**
 - Size of Business
 - Organization, Institution or Group
 - Innovations
 - Greenhouse Gases Reduction



How can we help?

- Identify or create key 'getting started' information resources , i.e. best practices, case studies, decision support tools
- Develop education and outreach programs
- Design and deliver training on P2 practices and tools
- Facilitate and improve information sharing
- Promote your P2 successes



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