

## Sustainable Economic Development and the Vancouver Context

Pacific Northwest Economic Development Council Conference 2005



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## Overview

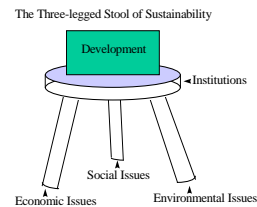
- Sustainable Development
- The economic dimension
- Corporations
- Local Government
- Momentum in Vancouver
- Conclusion

## Sustainable Development



- **Definition:**
  - Meeting the needs of today's generations without compromising the ability of future generations to meet theirs
- **Key Points:**
  - Economic, social and environmental health are interdependent
  - Think long term (50-100 years)

## The Three Legged Stool of Sustainability



- **Environment**
- **Economy**
- **Social Health**
  - and....
- **Institutions**

## Challenges & Goals of Sustainability

### Key Challenges

### Sustainability Goals

Climate Change / Air Quality	↔	Reduce Emissions
Fossil Fuel & Energy Supply	↔	Renewable Energy / Efficiency
Waste / Resource Scarcity	↔	Reducing Waste / Recycling
Water Quantity/Quality Supply	↔	Better Water Management
Ecosystem Damage	↔	Ecological Design / Protection
Food Supply / Quality / Security	↔	Organic / Local Supply
Economic Prosperity / Viability	↔	Diverse / Local Systems
Social and Community Health	↔	Individual Health and Community

## The Limits of the Planet

### Carrying Capacity



- **Carrying Capacity**
  - "...the number of organisms that a given habitat can support"
- **The Carrying Capacity of one planet**
  - = X humans + X other species
  - (and humans depend on other species health)
- **"Ecological Footprint"** (Rees / Wackernagel)
  - How much land to support our lifestyle sustainably?
  - Currency: "acres of ecologically productive land"
  - Currently on track to serious overshoot

## The Ecological Footprint

Rees / Wackernagel

## Our Ecological Footprint

## Europe's Ecological Footprint

20% of biosphere

**Europe's Competitiveness**

- With a footprint more than double its own biological capacity, Europe's well-being depends on ecological capacity from elsewhere.
- As long as its ecological deficit is unaddressed, Europe is losing its room to manoeuvre.
- Hence reducing its Ecological Footprint is essential for Europe's competitiveness.
- "While it is still cheap to run an ecological deficit, if humanity's current levels of resource consumption continue, such a deficit will become an increasing liability for countries..."
- This deficit spending will jeopardize Europe's long-term prosperity if it is not seriously addressed." *Mathis Wackernagel*

## The Economic Dimension

- **Prosperity**
  - Freezing in the Dark is not an option
  - Profit is an ecological principle
    - Tree
    - Relationships
- **Efficiency**
  - Waste is money
  - Waste is food
- **Factor 10**
- **Triple Bottom Line (TBL) Considerations**
- **The short and long term horizons**
- **Strategy**
  - "Sustainable Prosperity" is the goal

## Sustainability Vision

### The Factor 10 Economy

- **Industrial activity must increase 5 fold to meet our basic needs today**
  - UN states we need a 5 fold/capita increase in industrial activity to achieve planetary equity in a good quality of life
- **Population will double by the time we achieve this increase**
  - ...and still must maintain 5 fold / capita increase for that population as well
- **No increase in impact to planet from today's levels**

=

(you do the math)

## Triple Bottom Line

- **Economic**
- **Social**
- **Environmental**
- **Monitoring and Reporting**
  - Many corporations
- **Regulatory change** and new investment institutions needed to support value sharing across accounts and over time

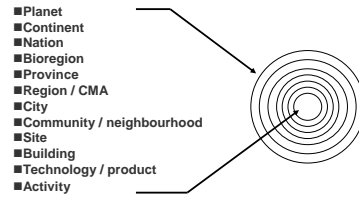
## What Sustainability Is and Is Not

- **It is not:**
  - Environmentalism
  - Social activism
  - Classical economics
  - The “sustainability” of any particular program or institution
- **It is:**
  - Cognizant of planetary limits
  - Creative, synergy solutions rather than tradeoffs
  - Long term and adaptable prosperity
  - **Multiple objectives**



## The Challenge of Scale

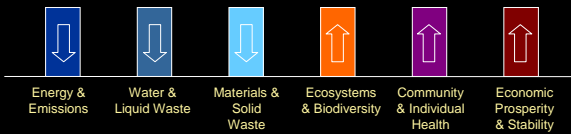
- **Sustainability:** *The planet to a piece of paper*



**Linkages** – The performance of each level is contingent on the performance of the levels below it.

## “The Accounts”

**Goal:** *To perform as well as we can on all accounts*



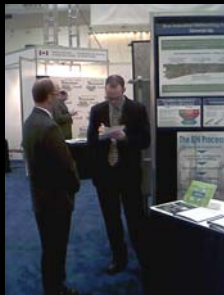
**Sustainability is a “direction” more than a “destination”**

## 2 Dimensions

- **Private Sector Corporations**
  - Shareholder value
- **Public Sector - Local Government**
  - Public and taxpayer value



## What Sustainability “means” to a corporation



- **Address core issues:**
  - Address to the greatest extent possible, core issues of “sustainability” within regulatory, financial, and market constraints
- **Advantage:**
  - Look for competitive and economic advantage

## Sustainability – Another View

### A Corporate Definition

“Sustainability is a process in which the creation of financial and social wealth or well-being does not erode the aesthetic and productive capacity of natural capital for present and future generations.”

- Rob Abbott

## Core Issues to Address

### Core Issues

- Energy & Emissions
- Water and Liquid Waste
- Materials & Solid Waste
- Ecosystem Integrity & Biodiversity
- Community & Individual Health
- Economic Prosperity & Stability

### Apply to business activity

- Facilities and infrastructure
- Construction, dismantling and waste management
- Operations
- Procurement
- Business strategy
- Marketing / profile
- Relationships / Partnerships
- HR
- Risk management
- Many others

## The Pay-Off

### Business:

- **Top Line:**
  - Market share
  - Stakeholder perception
- **Bottom Line:**
  - Reduced costs per unit of output
  - Reduced compliance costs
  - Due diligence

### Society:

- Cleaner air, land & water
- Fewer species at risk
- More renewable energy
- More "green jobs"
- Safer communities
- Greater citizen engagement

**Communities** are embracing sustainability at a record rate – and asking more of their corporate citizens

## Business Context

*"Companies that embrace the principles of sustainable development outperform their competitors, provide long-term shareholder value, diminish their impact on the environment and benefit the communities in which they operate."*

March 2002 R.O.B. Magazine (Globe & Mail)

## Local Government Roles

City role / dimension	Corporation <small>(Vancouver has 8,000 employees and is the largest landowner in the city)</small>	Service provider	Policy maker / regulator
Physical dimension	Buildings Fleets Equipment Procurement	Wide range of services - water, streets, parks, garbage, etc...	Wide range of policy and regulator jurisdiction
Management dimension	Strategic vision and goals, staff, budgets, monitoring reporting, etc...		

We need to approach all our responsibilities and activities with a multiple objectives, sustainability perspective

## The Sustainable Development Planning Matrix

*Keeping it all in your head*

### SD Goals

- Climate Change / Air Qlty
- Energy supply
- Resource efficiency
- Water quantity/quality
- Ecosystem integrity
- Food security
- Social and Community Health
- Economic prosperity

### City Issues

- Land use
- Transportation
- Buildings
- Open Space
- Infrastructure
- Management Systems
- Social Facilities & Programs
- Economic Opportunities and Infrastructure



## The Sustainable Development Planning Matrix

Sustainable Urban Development Planning Matrix	Land use	Transportation	Buildings	Open Space	Infrastructure	Facilities & Programs	Management Systems
Climate Change / Air Qlty							
Energy supply							
Resource efficiency							
Water quantity/quality							
Ecosystem integrity							
Food security							
Economic prosperity							
Social and Community Health							



### The Vancouver Region

- City of Vancouver
- Green buildings
- Olympics
- Academia
- Green communities
- Food
- EIN
- Federal interest
- Regional Econ Dev project

### City of Vancouver

- Massive growth
- Urban design vision
- Southeast False Creek and beyond
- Sustainability Office
- Climate Change Plan
- Green fleets
- Energy precinct
- Green buildings strategy
- Economic Dev Commission
- Many others – a “green fire burns”

### Green Buildings

- CaGBC – LEED
  - rapid growth
- SEFC / Olympic Village
  - LEED Silver
- City
  - All new civic bldgs= LEED Gold
- City wide green bldg strategy underway
- Many new towers are tackling “green”
- Development industry picking it up
- New industry of “green” growing up
- Green “thinking” soaking in

### Olympics

- 2010 Winter Olympics
  - “most sustainable games ever”
- Significant business activity in many sectors
- VP Sustainability (Linda Coady)
- Partnerships forming
  - VANOC, COV, Whistler, others
- Green buildings
- Green fleets
- Carbon neutral?
- Hydrogen highway
- Network of sustainability centres
- Many others

### Academia

- UBC, SFU, Emily Carr, BCIT
- Building new green communities and campuses
- Driving green into curriculum
- Filling the professions with “green professionals”
- Green industrial design
- Solar and alt E industries
- Research
- Engaging discussion of future prosperity
  - Eg: Ecological Footprint from UBC



## Green Communities



- Explosion of discussion and expectations
- Good projects emerging
  - (UBC, SFU, SEFC, East Clayton, East Fraser Lands, Maplewood, Highbridge, many others)
- City planning and regulations raising bar
- Development industry responding steadily
- Media articles regularly
- \$\$\$ Hundreds of millions in play

## Food



- Food as a high value flow in community
  - (\$hundreds of millions)
- Food Policy Council
- Buy local
- Farmers Markets
- Local restaurants

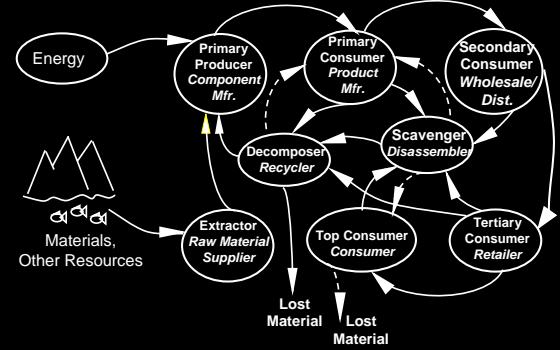
## Eco-Industrial Networking



- Networks of infrastructure, expertise and business relationships
  - Better economic performance
  - Better environmental performance
- Maplewood community
  - [www.maplewoodproject.org](http://www.maplewoodproject.org)
- GVRD promoting widely
- Industrial parks
- Ecoindustrial Solutions Inc

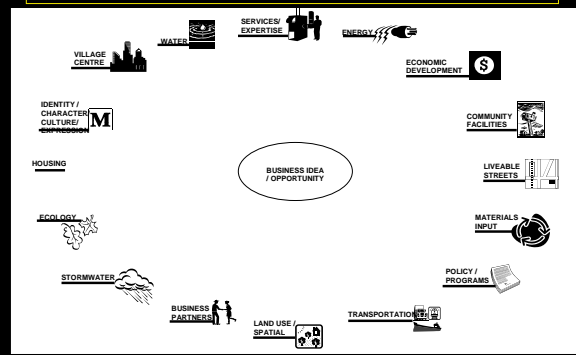
## Example of an Industrial Ecosystem

(Casavant, 2000, Adapted from Pezzack, 1998)

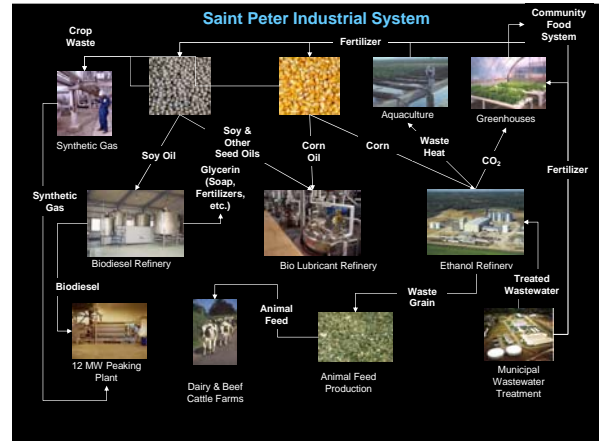


## The EIN Idea Generator

Multiple objectives in action



## Saint Peter Industrial System



## Federal Interest



- Federal departments looking for traction
- Kyoto commitments
- Vancouver region showing real progress on many fronts
- Environmental Technologies Forum

## Regional Econ Dev Project



- Vancouver region starting slowly on economic development strategy
- Sustainable Region Initiative
- Slow and careful

## Where to from here?



- **Sustainable Economic Development Strategies**
  - Integrate “sustainability” objectives into all business and growth thinking
  - Focus on strategic sectors – specialize
  - Build EIN networks
  - Build the relationships
  - Share and sell vision
  - Measure and celebrate success
- **Sustainability is not an ideology or a sector – it is a paradigm... and an inevitability**
  - The question is on how strategic and prosperous our path will be.



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