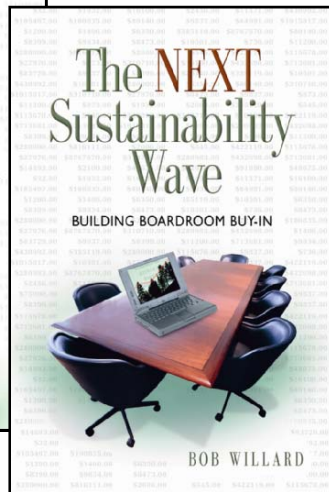
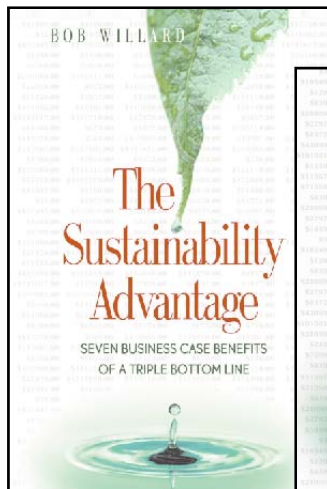


Communicating the *BUSINESS CA\$E* for Sustainability



Sustainability Using
The Natural Step
Framework

January 23, 2008



Definitions of Sustainability

Sustainable Development (SD)

Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs



-- Brundtland Commission, 1987 --

Sustainability

The possibility that human and other forms of life on earth will flourish forever

-- John Ehrenfeld, Professor Emeritus. MIT --

Sustainable Development (SD)

Enough - for all - forever

-- African Delegate to Johannesburg (Rio+10) --

Conditions for a Sustainable Society

In a sustainable society,
nature is not subject to systematically increasing ...

1. concentrations of substances extracted from the earth's crust
e.g. heavy metals, mercury, lead, cadmium; fossil fuels
2. concentrations of substances produced by society
e.g. 70,000+ chemicals; dioxins, PCBs, flame retardants
3. degradation by physical means
e.g. forests, fisheries, farm lands
... and in that society ...
4. human needs are met worldwide
e.g. air, water, food, shelter, quality of life



Core Concepts of Sustainability

Futures Thinking

Intergenerational responsibility

(Eco-)Systems Thinking

Carrying capacity of the planet
to absorb waste and support life

Social Justice

Equity, Dignity, Basic services, Human rights,
Stakeholder voices

Economic, Environmental, Social/Cultural
responsibilities

Sustainability 3-Legged Stool

Sustainability

Economic Leg

Good Jobs
Fair wages
Security
Infrastructure
Fair Trade



Environmental Leg

0 Pollution & Waste
Renewable Energy
Conservation
Restoration

Social Leg

Working conditions
Health services
Education services
Community & Culture
Social justice

Quality of Life / Genuine Wealth / Genuine Progress

Corporate Sustainability 3-Legged Stool

Sustainability – Sustainable Development (SD)

Environmental, Social, Governance (ESG)

Corporate Social Responsibility (CSR)

Corporate Responsibility (CR)

Triple Bottom Line (TBL) – 3Es – 3Ps

Economy - Profits

Growth, Jobs,

Taxes

Products

Services



Environment - Planet

Eco-efficiencies

Eco-effectiveness

Restorative

Equity - People

Employees

Community / Culture

World

Smart Business 3-Legged Stool

Asset Management

Financial
Capital

Built
Capital



Natural
Capital

Human
Capital

Social
Capital

5-Stage Sustainability Journey

5. Purpose/Passion

Values-driven founder / CEO

4. Integrated Strategy

Enhanced business value



3. Beyond Compliance

Eco-efficiencies /
PR crisis /
Regulatory threat

2. Compliance

Regulatory enforcement

1. Pre-Compliance

Company Value “Iceberg”

Balance Sheet

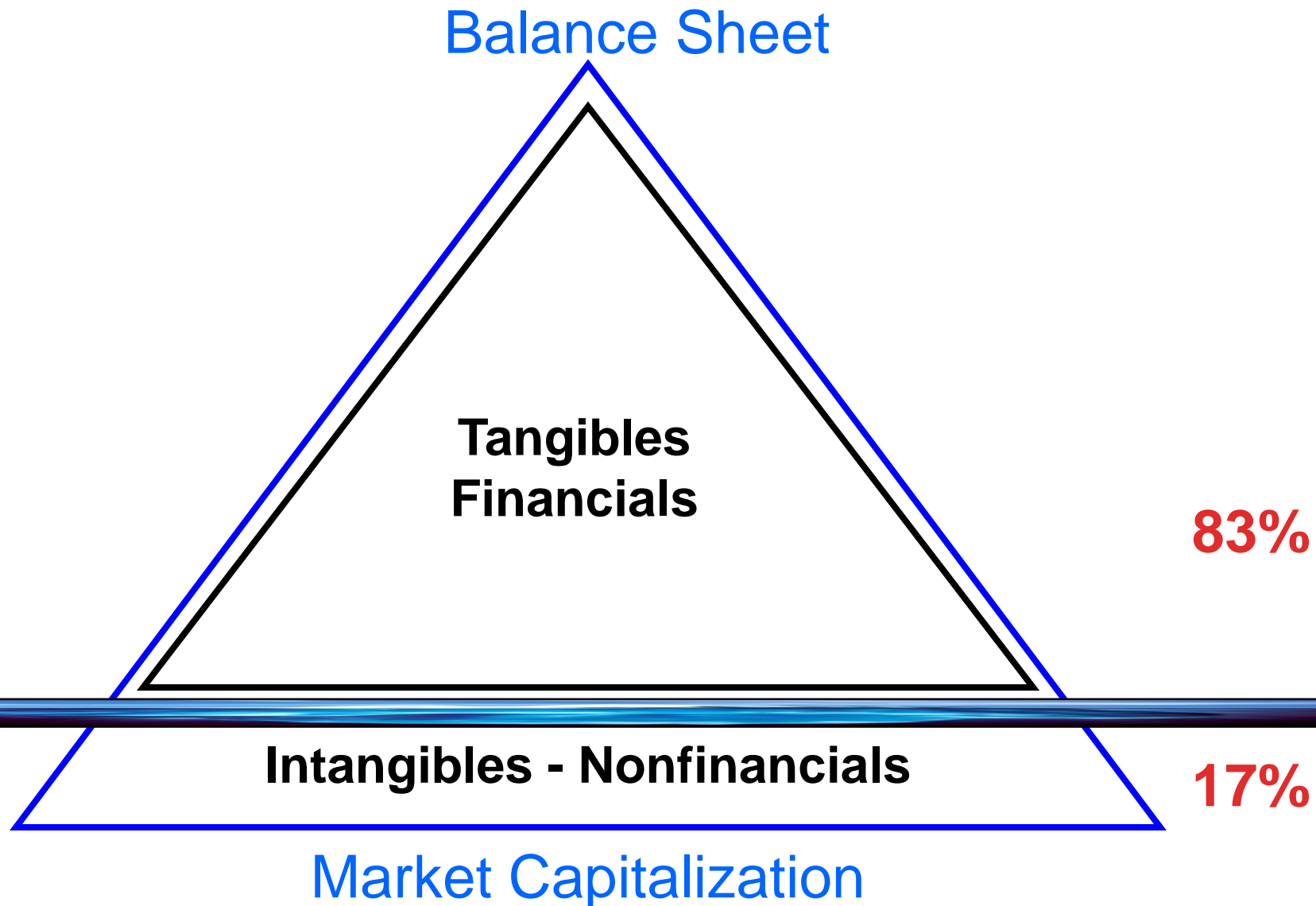
**Tangibles
Financials**

Intangibles - Nonfinancials
Brand Image - Reputation
Stakeholder Relationships

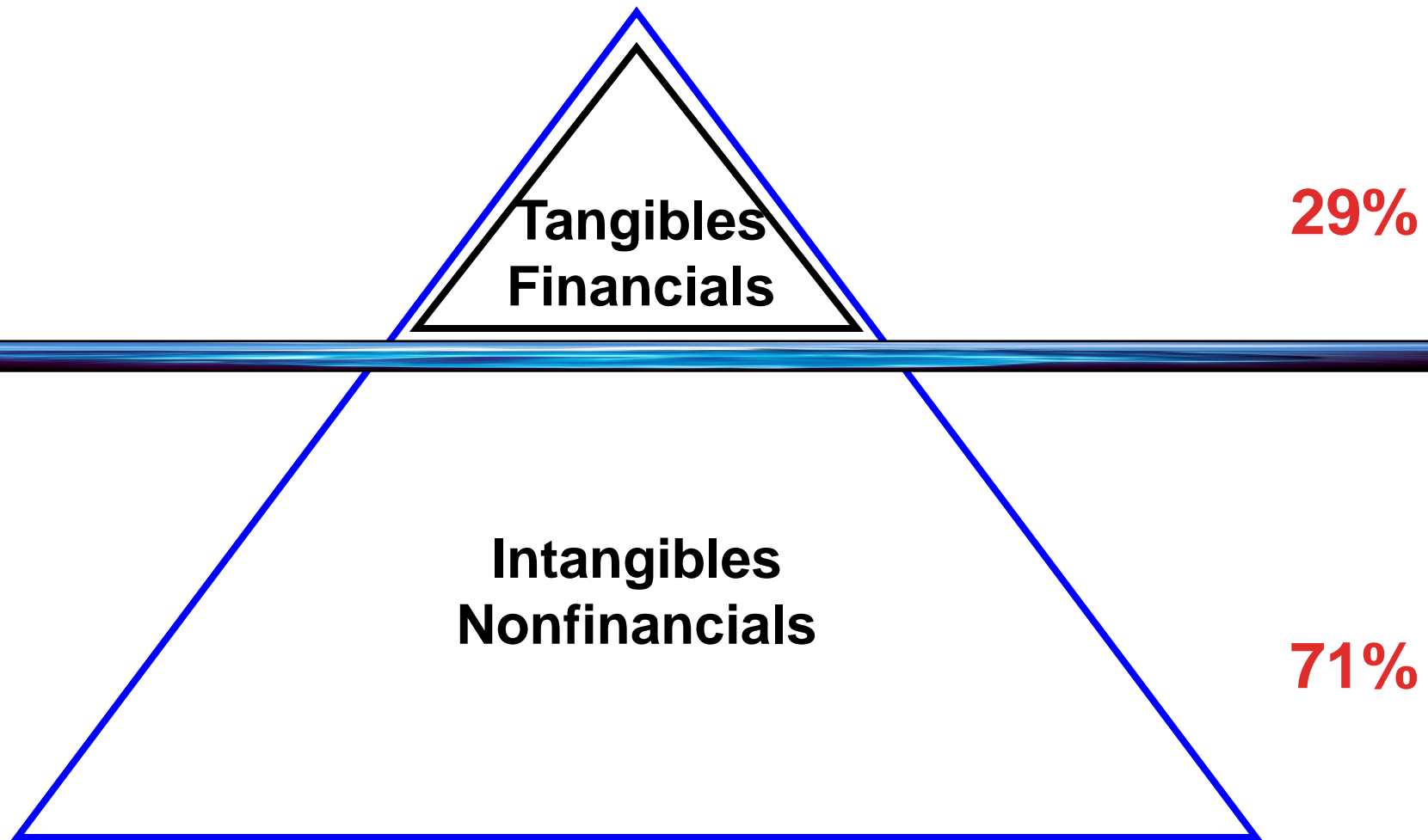
Market Capitalization



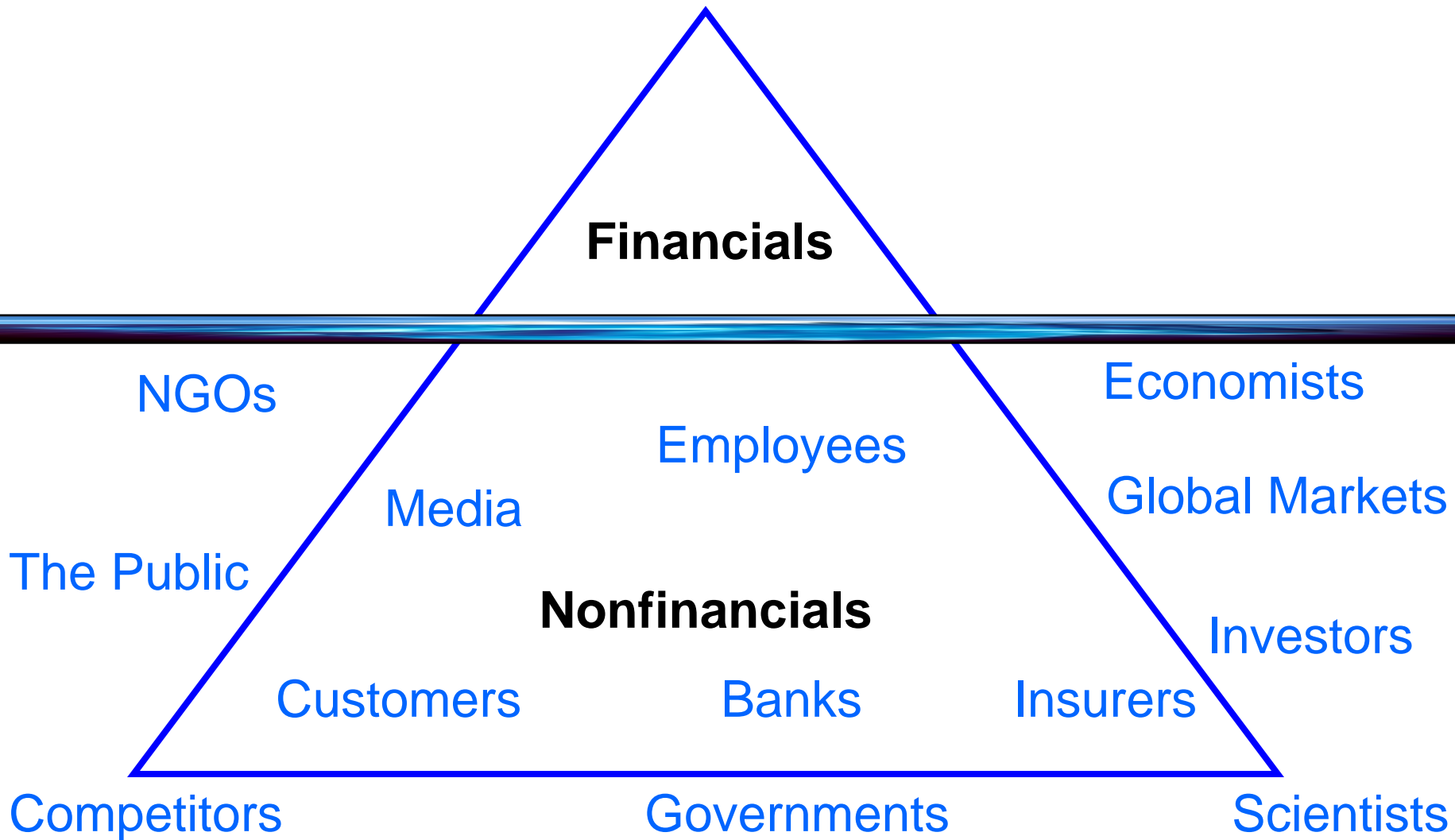
Company Value “Iceberg”: 1981



Company Value “Iceberg”: 1998



Sea of Demanding Stakeholders



Two-Part Business Case

OPPORTUNITIES

Financials

NGOs

Economists

Employees

Media

RISKS

Global Markets

The Public

Nonfinancials

Investors

Customers

Banks

Insurers

Competitors

Governments

Scientists

The Perfect Storm

Oct. 27 – Nov. 1, 1991

1. Hurricane **Grace** (former)
2. Cold front from Great Lakes
3. Warm front from Sable Island

Fed on each other's energies

Worst storm in history ... 100' waves
Sudden, unexpected, devastating

v

Mega-Issue Storm Clouds

Pollution & Health

Other ...

Climate Crisis

Water Crisis

Pandemics

Energy Crisis

Erosion of Trust

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The Debate is Over ...

Positive proof of global warming.



**18th
Century**

1900

1950

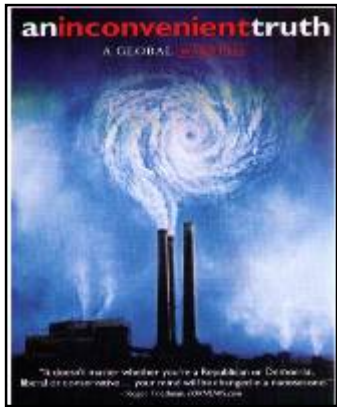
1970

1980

1990

2006

Awakened Public - Consumers



The “Goracle factor”

+ Hurricane Katrina (\$125B, 1,833 deaths)

+ Weird weather globally

+ Rising gas prices + IPCC reports + ...

70-80% of consumers say are switching to “green” companies

20% actually did in 2006;

LOHAS sector: \$200B in 2007; \$420B by 2010; \$845B by 2015



Warnings from Economists

Stern Review Report (Oct 2006)

Former World Bank chief economist, Nicholas Stern

Quantified warnings in the 1997

Economists' Statement on Climate Change

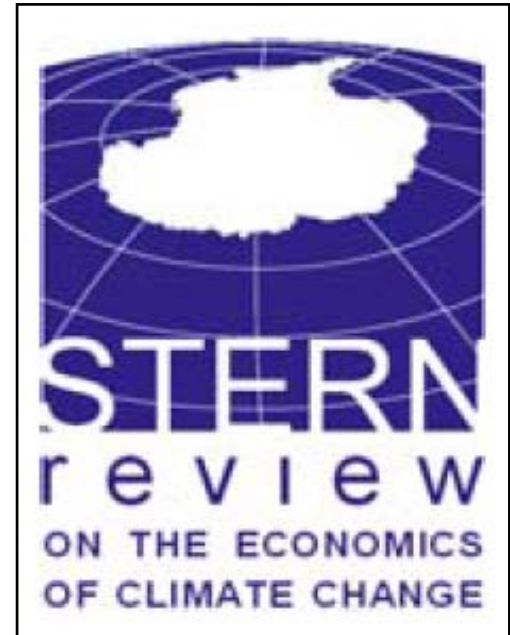
1. **Cost of climate change mitigation:**

1% of annual global GDP by 2050
if we act now; 5-20% if we act later

2. **Benefits of \$2.5T** if we act now; global depression if we do nothing

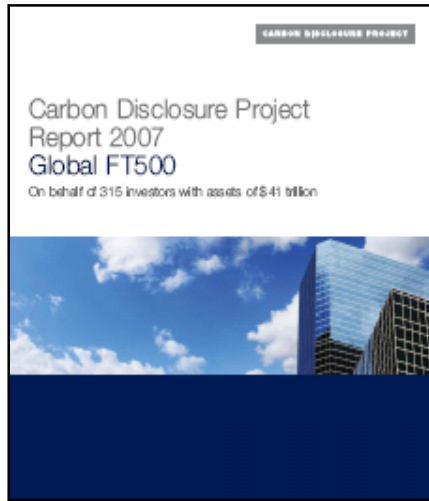
3. **Must stabilize GHGs:**

Use carbon taxes and / or
a cap-and-trade system;
deploy low-carbon technologies;
remove barriers to energy efficiency



Risk of Becoming a “Risky Investment”

Carbon Disclosure Project



	2003	2007
Institutional Investors	35	315
Value of Assets Held	\$4.5T	\$41T
Companies Surveyed	FT500	2,400

Q. Revenue, regulatory, or physical risks to value from climate change?

A. Carbon-intensive manufacturers could lose 40% of their market value; Banks could lose 29% of value

Investor Network on Climate Risk (INCR)

65 institutional investors, \$4T in assets



Asked SEC to require listed companies to **disclose climate change risks** in their financial performance (June 06);

Climate Watch List of worst 10 GHG emitter companies got shareholder resolutions on climate change (Feb 07);

Capital to Capitol report: Request that Congress **cut GHGs 60-90% below 1990 levels by 2050** (Mar 07)

Threat to European Market Access

Pollution & health regulations

Restriction on Hazardous Substances (RoHS)

Waste from Electrical and Electronic Equipment (WEEE)

End of Life Vehicles Directive (ELVD)

Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Energy-using Products (EuP)

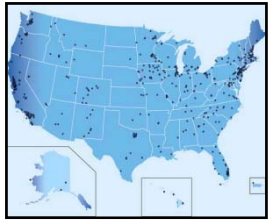
Climate Change Plan

Reduce CO2 20% below 1990 level by 2020

Big retailers taking action

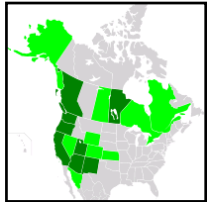
The Tesco logo, featuring the word "TESCO" in red capital letters above four blue horizontal lines.The "Your M&S" logo, with "YOUR" in grey, "M" in grey, "&" in green, and "S" in grey.The Asda logo, with "ASDA" in green capital letters and "part of the WAL*MART family" in smaller blue text below it.

Threat of U.S. Actions



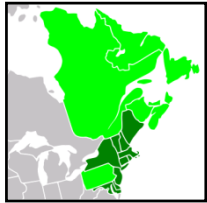
U.S. Mayors' Climate Protection Agreement

Kyoto at city level for 780 U.S. cities (as of Jan 08)
7% below 1990 GHG levels by 2008-2012



Western Regional Climate Action Initiative (Feb 07)

5 west-coast U.S. States + BC & MB
Cap-and-trade system; -15% GHGs by 2020



Regional Greenhouse Gas Initiative (RGGI) (Sept 03)

10 East-coast U.S. States
Cap-and-trade system



Midwestern Greenhouse Gas Reduction Accord (Nov 07)

6 Midwest States + MB: -80% GHGs by 2050



US Climate Action Partnership (USCAP)



31 corps and NGOs; want cap-and-trade,
15% GHG cut in 15 years; 60-80% GHG cut by 2050

Climate Change Risks

Regulatory: Mandatory carbon caps or taxes

Litigation: Lawsuits about negligence, public nuisance, trespass

Supply Chain: Suppliers passing carbon costs and risks on to buyers

Physical: Damage to assets from severe weather – yours, supply chain's, or customers'

Competitors: Rivals develop climate-friendly products and technologies first

Reputation / Revenue: Backlash from consumers, markets, and important stakeholders

Access to Capital / Market Value: Viewed as “risky” by investors and banks

Unusual Threats Driving Sustainability

National Security

Alternative energy: \$6B sector in US by 2008; \$167B by 2015

War for Talent

Sustainability reputation:

70% of NA grads seek companies with good CSR reputations

Revenue Pressure

Carbon trading: \$29.8B global market in 2006; set to double in 2007

Sarbanes Oxley

Sustainability reporting:

Global Reporting Initiative guidance on reporting risks
64% of Global 250 do sustainability reports

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One More Goal ... or an Enabling Strategy?

Profit

Innovation

Share price

Speed to market

Growth

New markets

Revenue

Talent wars

Customer care

Productivity

Expense savings

Motivation

Competition

Brand image

Market share

Managing risks

Leadership

Compliance

Governance

Supply security



Typical SME Company Benefits

Revenue	\$4,000,000	
Profit	\$200,000	(5% of Revenue)
Workforce:	50	(43 + 7 Managers)
Avg. Employee Salary	\$25,000	
Avg. Manager Salary	\$55,000	

Potential profit increase: +66%

- + Energized employees + Improved corporate image
- + Competitive advantage + Positioned for the future



Lead It Like Any Culture Change

1. **Walk the talk** as senior leaders

Integrate into vision - mission – strategies

Business strategy vs. philanthropy

Avoid “green-washing” hype

Visible support – speeches, questions, actions

2. **Educate** the whole company

Solicit employee ideas - help

3. **Align** with measurement & reward systems



6 Benefit Areas

1. Reduced recruiting costs
2. Reduced attrition costs
3. Increased employee productivity
4. Eco-efficiencies: savings in energy, water, materials, waste handling
5. Increased revenue / market share
6. Lower insurance & borrowing costs

Usual
focus

... yielding a profit increase of **+66%**



Potential Improvements

- | | |
|--|------|
| 1. Reduced recruiting costs | -1% |
| 2. Reduced attrition costs | -2% |
| 3. Increased employee productivity | +6% |
| 4. Eco-efficiencies: savings in energy, water, materials, waste handling | -10% |
| 5. Increased revenue / market share | +5% |
| 6. Lower insurance & borrowing costs | -5% |

... yielding a profit increase of **+66%**



What if ... ?

- | | |
|--|---------------------|
| 1. Reduced recruiting costs | -1% |
| 2. Reduced attrition costs | -2% |
| 3. Increased employee productivity | +6% |
| 4. Eco-efficiencies: savings in energy, water, materials, waste handling | -10% -5% |
| 5. Increased revenue / market share | +5% |
| 6. Lower insurance & borrowing costs | -5% |

... yielding a profit increase of ~~+66%~~
+56%



What if ... ?

- | | |
|--|----------------------|
| 1. Reduced recruiting costs | -1% |
| 2. Reduced attrition costs | -2% |
| 3. Increased employee productivity | +6% |
| 4. Eco-efficiencies: savings in energy, water, materials, waste handling | -10% |
| 5. Increased revenue / market share | +5% +2.5% |
| 6. Lower insurance & borrowing costs | -5% |



... yielding a profit increase of ~~+66%~~
+64%



What if ... ?

- | | |
|--|--------------------|
| 1. Reduced recruiting costs | -1% |
| 2. Reduced attrition costs | -2% |
| 3. Increased employee productivity | +6% -3% |
| 4. Eco-efficiencies: savings in energy, water, materials, waste handling | -10% |
| 5. Increased revenue / market share | +5% |
| 6. Lower insurance & borrowing costs | -5% |



... yielding a profit increase of ~~+66%~~
+48%



What if ... ?

- | | |
|--|----------------------|
| 1. Reduced recruiting costs | -1% |
| 2. Reduced attrition costs | -2% |
| 3. Increased employee productivity | +6% +3% |
| 4. Eco-efficiencies: savings in energy, water, materials, waste handling | -10% -5% |
| 5. Increased revenue / market share | +5% +2.5% |
| 6. Lower insurance & borrowing costs | -5% |



... yielding a profit increase of ~~+66%~~
+35%



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The “Tipping Point”?

20%

5. Purpose/Passion

Values-driven founder / CEO

4. Integrated Strategy

Enhanced business value

3. Beyond Compliance

Eco-efficiencies/

PR crisis/

Regulatory threat

2. Compliance

Regulatory enforcement

1. Pre-Compliance



In Summary ...

Sustainability is **smart business**

New **market forces - risks** are in play

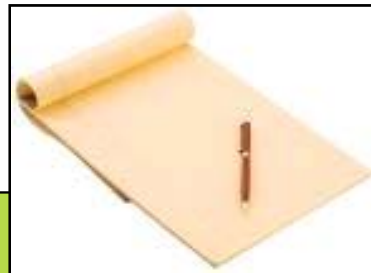
Public **expectations** are rising

Talk **business language**

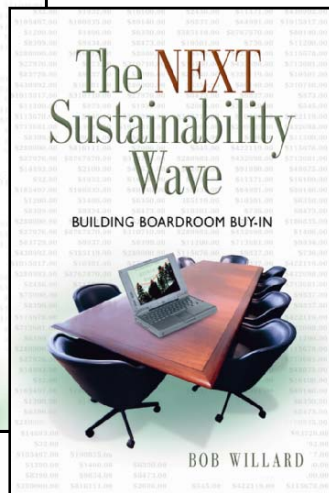
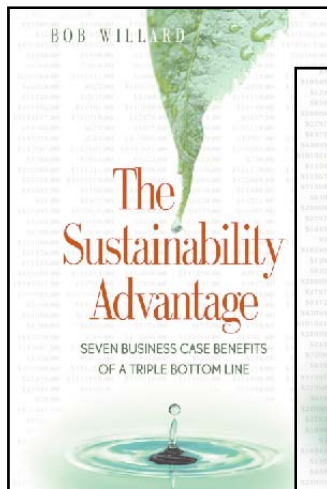
Show **relevance to existing priorities**

You are **not alone**; find partners

Opportunity for **leadership**



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