



The business case of Sustainable Development

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The business case for Sustainable Development – from the WBCSD

1. Enhancement of brand value and creation of goodwill
 - Effect on market valuation
 - Effect on license to operate and innovate
2. Operational efficiency and effectiveness
 - Eco-efficiency –zero pollution
 - Safety –no incidents
 - Local community interactions
3. Recruitment and retention of talent
4. Risk reduction
5. Market Opportunities
6. Protecting the resource base of raw materials
7. The meaning of life



Proud of our History

- The concepts of Sustainable Development have been part of Dow's fabric since its founding in 1897 by H.H. Dow
- Significantly enhanced by Carl Gerstacker in the 1960s-70s
- **W**aste **R**eduction **A**lways **P**ays started in 1986 – to recognize employees for efforts designed to reduce or eliminate waste and pollution
 - Since inception, Dow has given the WRAP Award to 395 projects and their sponsors-accounting for the reduction of 230,000 tons of waste, 13 million tons of wastewater, and 8 trillion BTU's of energy. The value of all these projects totals roughly \$1 billion.
- Announced 10-year goals in 1996
 - committed to report publicly
 - complete by YE 2005



10-Year Goals: How? Why?

1994 Baseline

- Injury rate
2.57/200,000 work hours
- 2,616 incidents
(leaks, breaks and spills)
- Chemical emissions
>70,000 tons



10-Year Goals: How? Why?

- How did we land on these goals specifically? Three areas of focus:



Forecast of Goal Achievement



Incident Reduction Goals

Goal	2005 Goal Reduction Target	Performance at end 2004	Forecasted Achievement of Goal
Personal Safety & Health	90% (0.24)	86% (0.37)	95%
Loss of Primary Containment	90% (262)	78% (575)	87%
Process Safety Events	90% (19)	83% (32)	92%
Motor Vehicle Accidents	50% (2.6)	50% (2.6)	100%
Transportation Incidents	90% (.05)	81% (0.10)	90%
Incidents at Customer Facilities	50% (0.22)	55% (0.20)	110%

Forecast of Goal Achievement



Resource Productivity Goals

Goal	2005 Goal Reduction Target	Forecast Reductions in 2005	Forecasted Achievement of Goal
Priority Emissions	75%	84%	113%
Chemical Emissions	50%	52%	103%
Waste (per lb. prod.)	50%	40%	81%
Waste Water (per lb. prod.)	50%	35%	70%
Energy Intensity (BTU per lb. prod.)	20%	23%	116%



2005 Goals – Value proposition

In 2002, we revisited the business case for meeting the EH&S 2005 goals that we had established, based on recent performance and expectations for future performance, costs and benefits.

- Resource Productivity Improvement Goals (energy, emissions, waste, wastewater)
 - we estimate that we will ultimately spend close to \$1 billion and achieve overall value of \$3-5 billion, largely dependent on the volatile price of energy and feedstocks.
- EH&S Incidents Goals (Process safety, personal safety, LOPC's, transportation)
 - We estimate a total cost of \$95 million, and an overall value of \$130 million (TCA methodology from AiCHE/ CWRT)



Value proposition – total economic impact of human health of employees

Total impact made up of direct and indirect costs, (direct being costs paid directly to providers, for prescriptions, or health programs; indirect being absenteeism and presenteeism combined)

- We found that more than half of our total costs globally were indirect
- 90 percent of the indirect costs were directly related to presenteeism



“Good Health for the Whole Self”

Excited About Our Future: 2015 Goals



1996-2005

- “Do less bad”
- Doing more with less – Eco-efficiency
- Quantity
- Inside out
- Energy efficiency

2006-2015

- “Do more good”
- Product Stewardship
- Quality
- Outside in
- Addressing climate change



Value proposition – Improved reputation

Brand + Performance = Reputation

“Getting the talk/ do ratio right!”



Some points to ponder....

- The dilemma of the “double discount”
 - Financial discounting
 - Mental discounting
- The “crisis of boundary conditions”
- Lack of strong evidence on equity evaluations
- Risk vs. the perception of risk
- “Business cannot succeed in a society that fails.”

WBCSD

Sustainability through the Market

2001