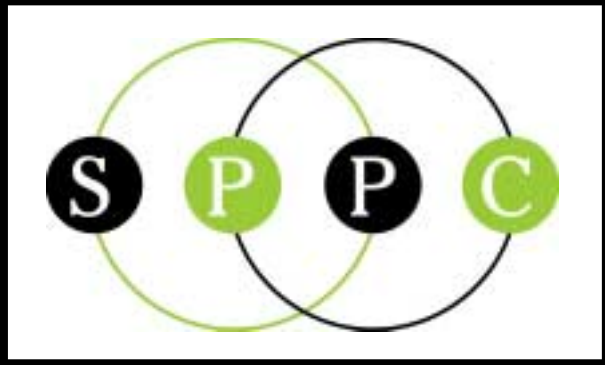
Life Cycle Analysis & Purchasing Workshop

InLCA/LCM 2003

Seattle, WA USA
September 23, 2003



Sustainable Products Purchasers Coalition
Neil Collie
Development Director

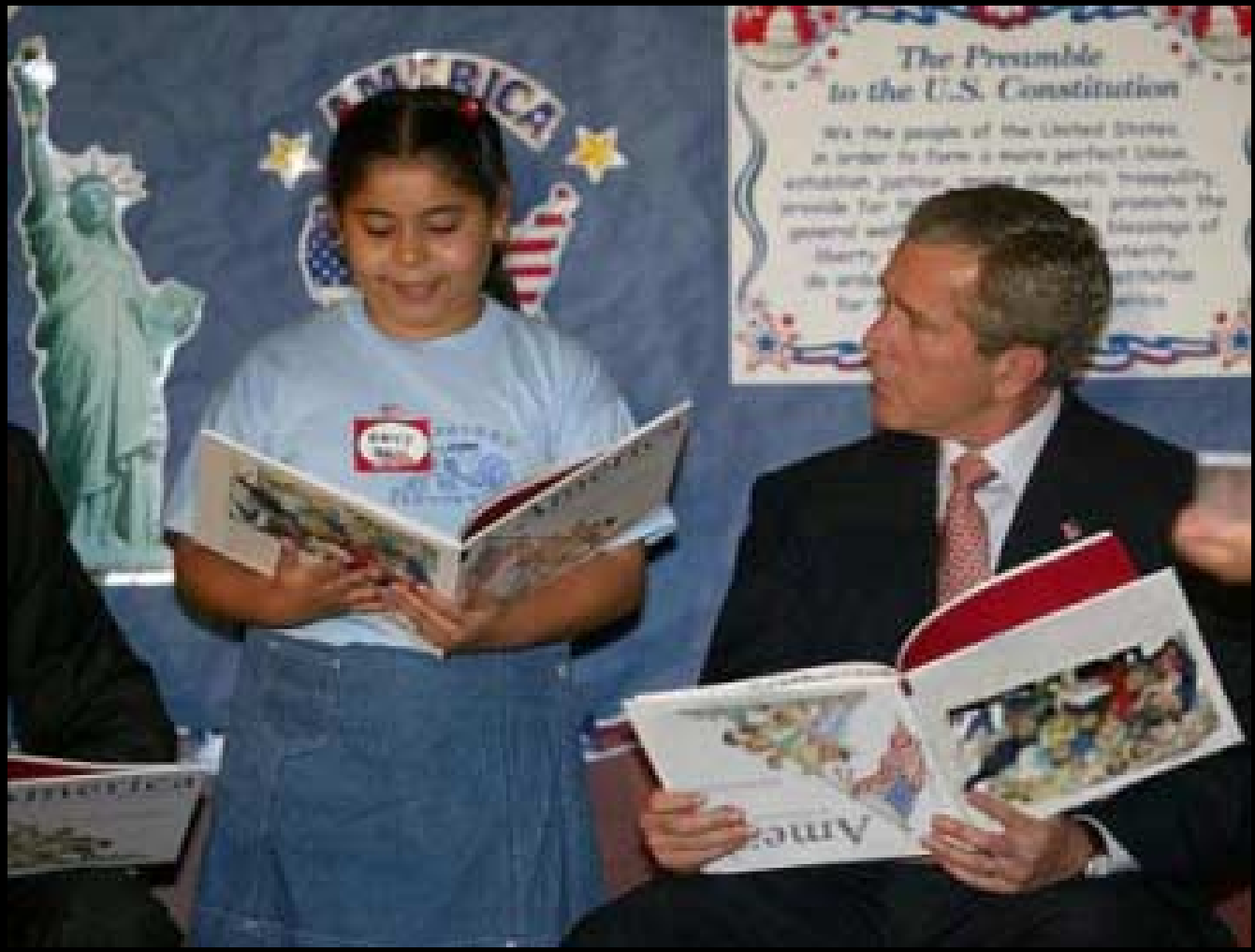
Current Issues

Virtually all environmental impacts of a product are defined in the design stage.

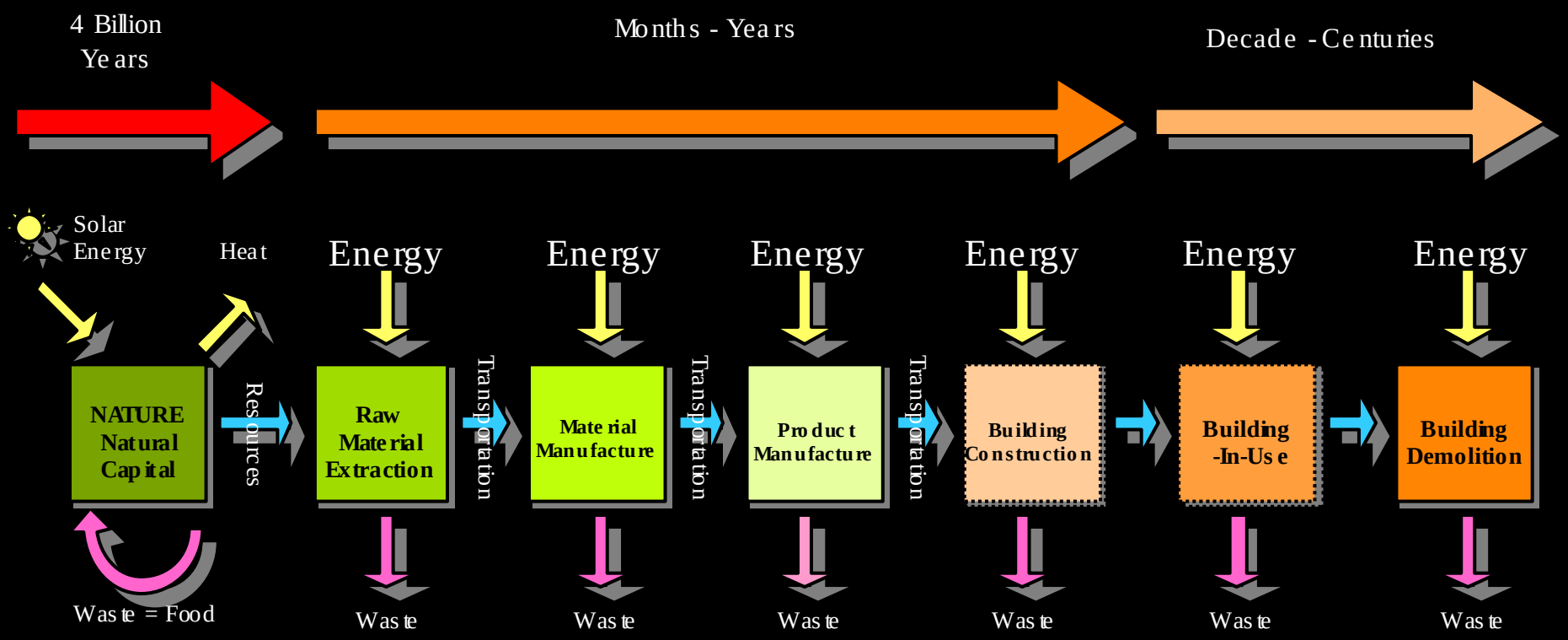
Perception exists among manufacturers that to do an LCA and make their LCA public provides little marketing benefit and opens them up to their competition.

Who Do People Trust On The Environment?

Source: Eurobarometer 2000


The Preamble
to the U.S. Constitution

Typical Building Production Life Cycle



Manufacturers

Internal use of LCA's

Engineering for Design

- To determine lowest environmental impact

Benchmarking

- Measuring performance across an organization
- Annual tracking of environmental performance

Manufacturers

External use of LCA’s

Benchmarking

Across an industry (Eco Labels)

Public Policy

Extended Producer Responsibility

Kyoto Protocol

Measuring climate change

Manufacturers
External use of LCA's

Marketing

To achieve market advantage

Dupont Antron

"Our goal for the 21st century is to become a **sustainable growth** company – **one that creates shareholder and societal value while decreasing our environmental footprint** along the value chains in which we operate."

Charles O. Holiday, Jr.
Chairman and Chief Executive Officer and
Chief Safety, Health and Environment Officer

Manufacturers

External use of LCA's

Environmental Protection Agency (EPA) USA

Environmentally Preferable Purchasing program (EPP)

Help prevent waste and pollution by considering environmental impacts

Purchasers

How do purchasers choose a product?

Purchasers

How purchasers choose a product…

Cost

Durability

Availability

Multiple Source

Reputation

Relationships

Environmental Considerations

Purchasers

Single Attribute Claims….

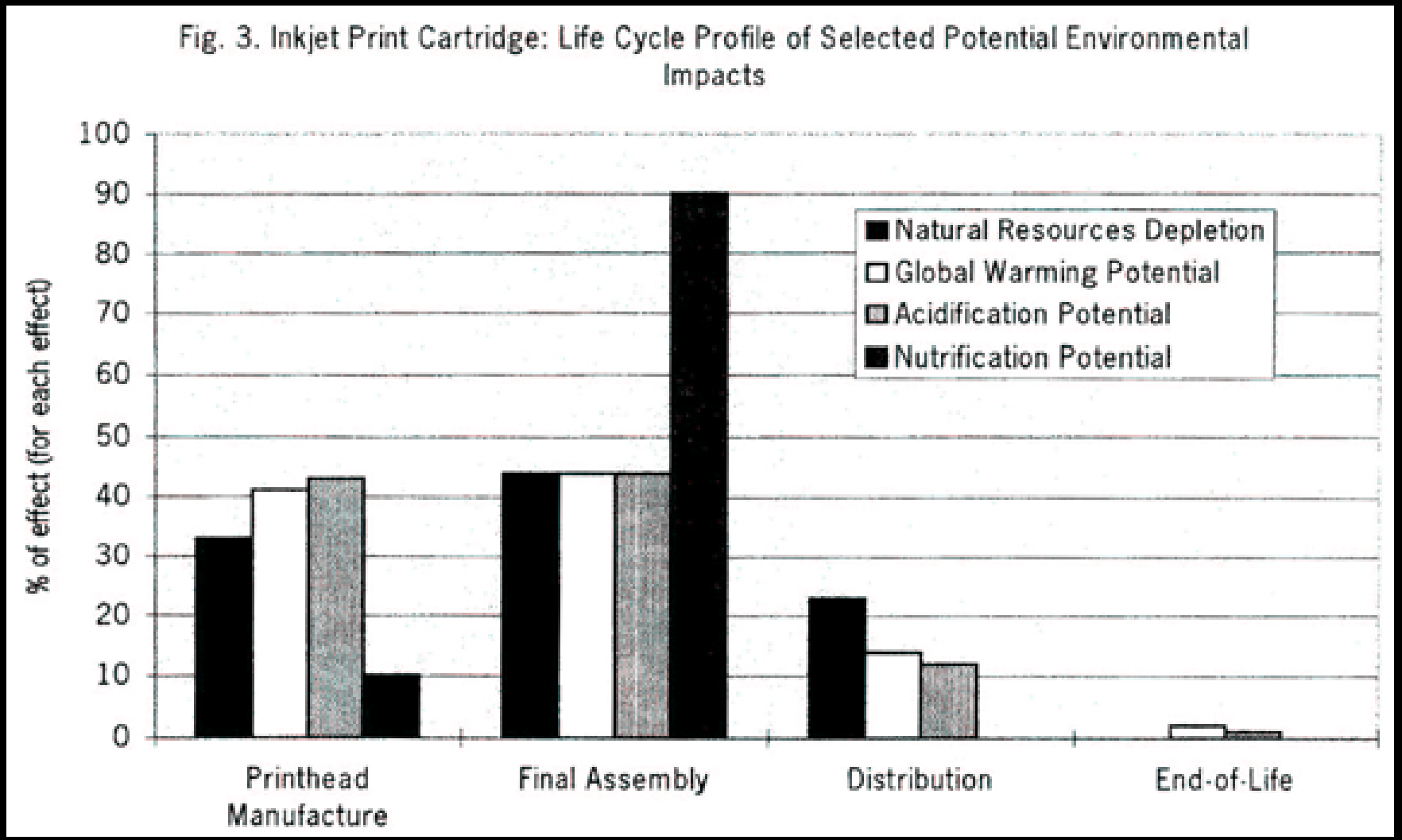
Recycled Content

Water Use Reduction

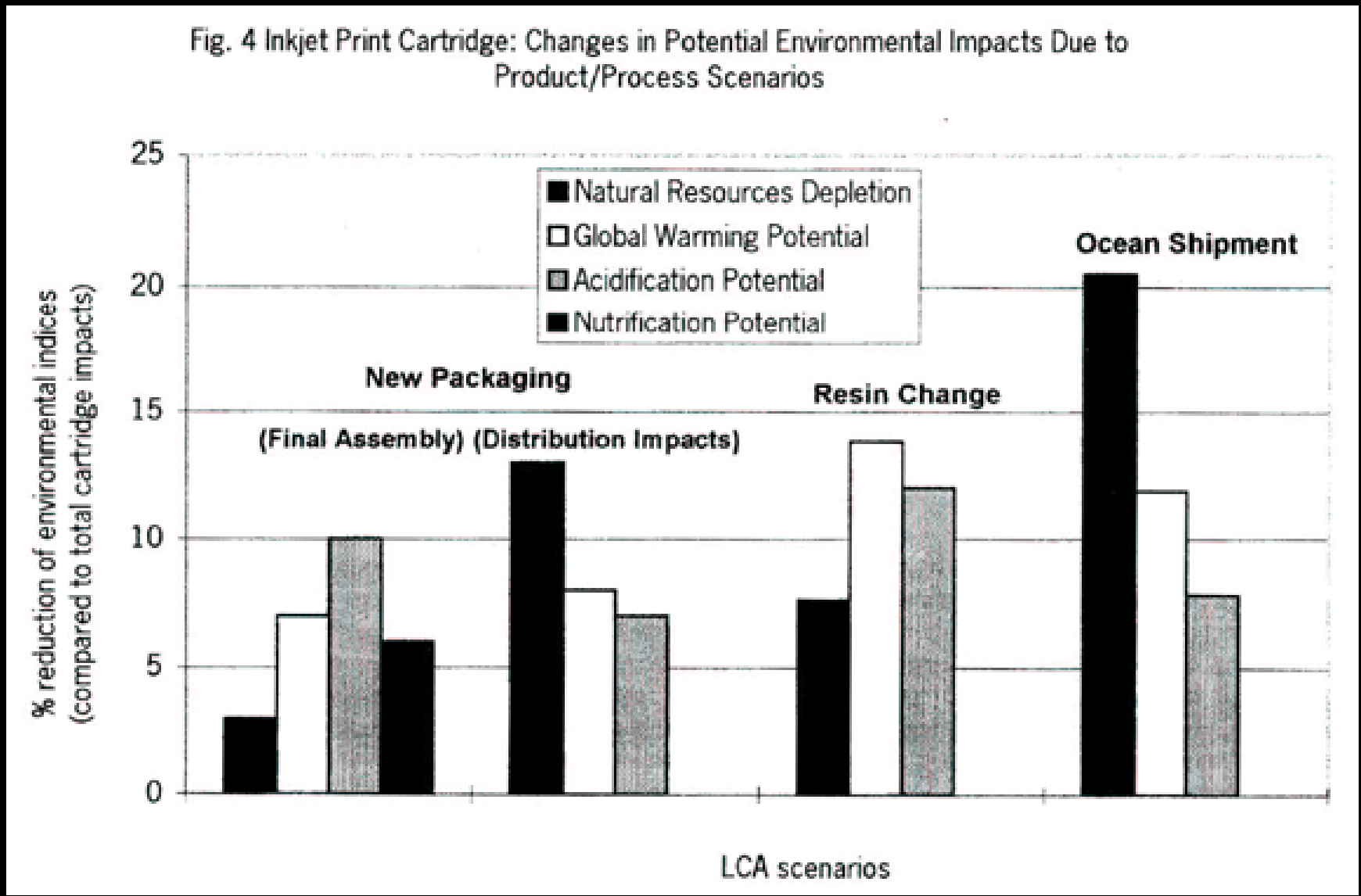
Energy Efficiency

Low VOC

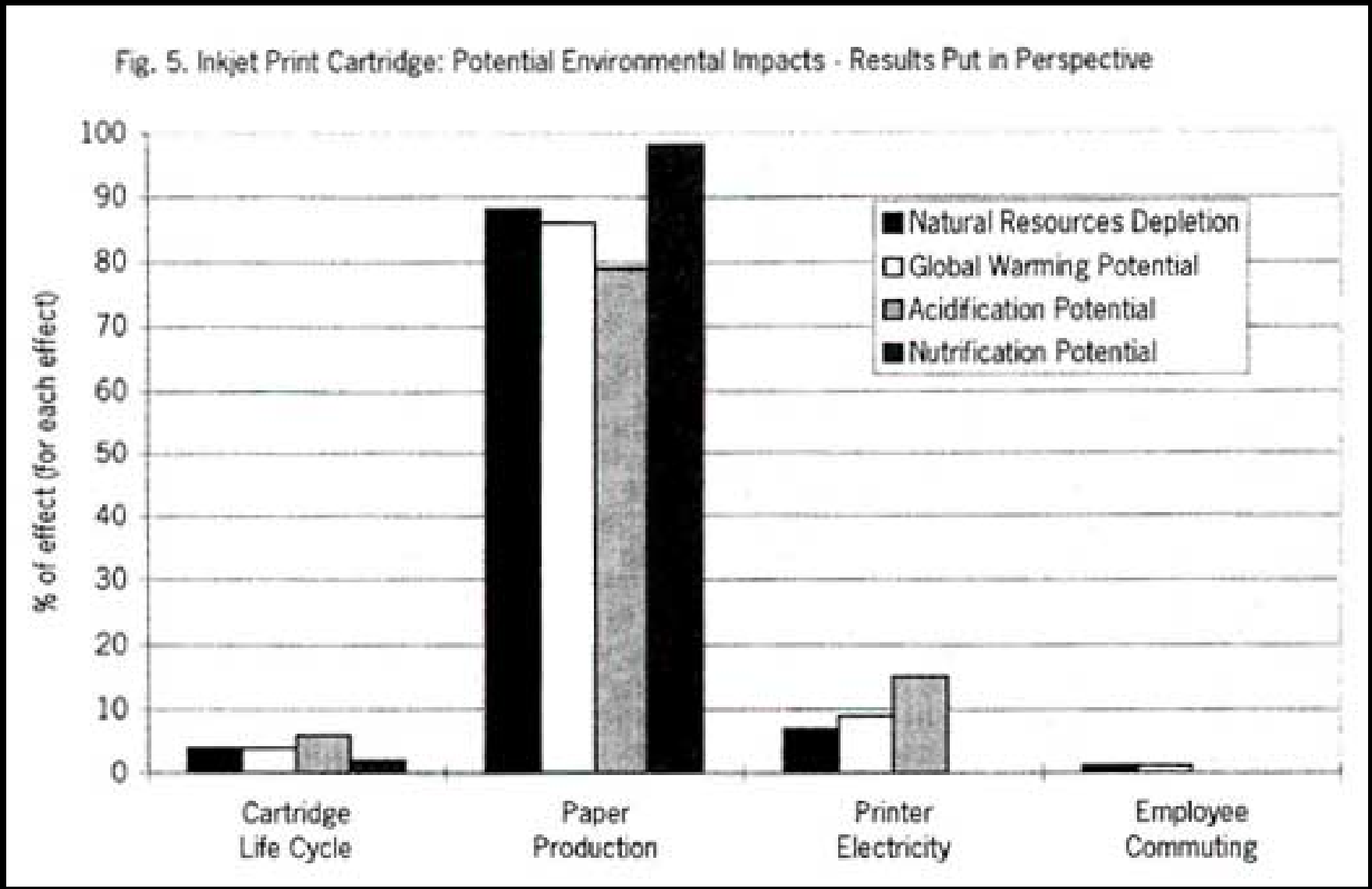
LCA Comparisons



LCA Comparisons



LCA Comparisons



WHAT'S NEW
CARPET FIBER
SUSTAINABILITY
INNOVATIONS
FLOORING CATALOG
HOW TO
RESOURCES

The Environmentalists™

Total Environmental Impact (TEI) Index

(click on the category to see the detail)

	Industry Impact	Antron® nylon in 2000	Antron® nylon in 2010
Natural Resources	10	8	7
Global Warming Emissions	10	8	4
Other Air Emissions	10	8	7
Land Emissions	10	7	2
Water Use	10	7	5
Safety and Health	10	4	2
Value Recovery	10	9	5
Total Environmental Impact (TEI) Index	10	7	5

Natural Resources (depletable) includes every pound of organic or inorganic material removed from the earth to provide materials or energy for manufacturing. This covers extraction from the ground to the delivery of fiber to carpet mills. Natural Resources include the coal, oil and gas used to generate electricity, as well as the oil and gas used as feed stock for nylon intermediates. They are also used as finishes for pigments to color nylon.

What are we doing about it?

- Between 1990-2000, we increased our production by 35% without increasing energy use.
- We've increased the efficiency of our power plants through modernization, co-generation and in some cases, using waste, not fossil fuels, to generate power.
- Our ongoing recycling efforts throughout the entire manufacturing process limit the use of new resources.
- In the last five years, the need for fiber finishes has been reduced

Inventory data source:

Franklin Associates, typical U.S. High impact polystyrene inventory, 1998 data excludes capital goods (emissions from factory infrastructure production)

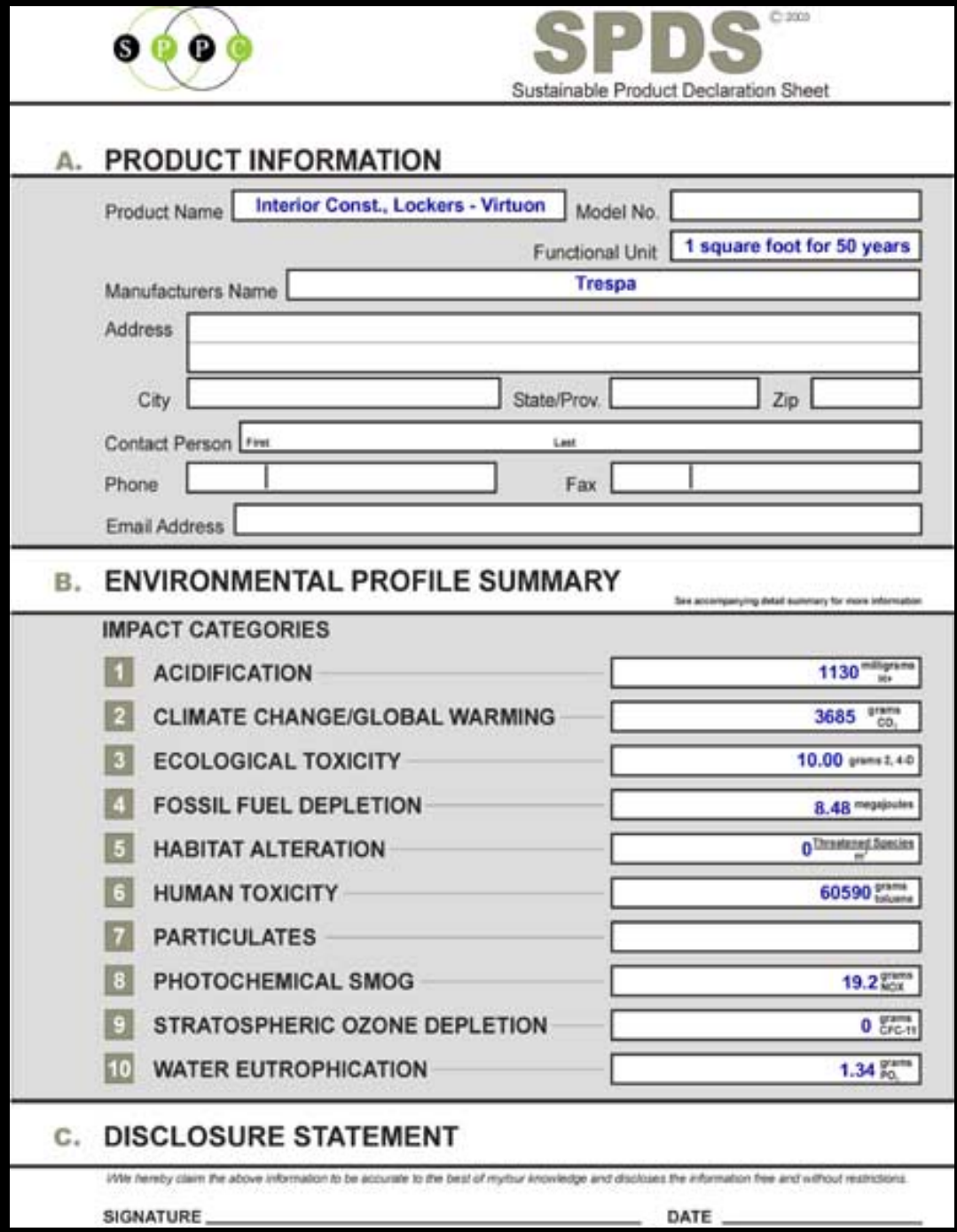
Impacts characterized by the Eco-Indicator 95 method

EI95 Impact category	Unit	HIPS	HIPS recycled
greenhouse	kg CO2	1.317	1.014
ozone layer	kg CFC11	1.21E-08	1.266E-08
acidification	kg SO2	0.02251	0.01487
eutrophication	kg PO4	0.000675	0.0005448
heavy metals	kg Pb	6.18E-06	0.000003968
carcinogens	kg B(a)P	3.78E-09	2.732E-09
winter smog	kg SPM	0.01942	0.01234
summer smog	kg C2H4	0.003252	0.001795
pesticides	kg act.subst		
energy resources	MJ LHV	45.7	28.79
solid waste	kg	0.1358	0.1462

Environmental Impacts Categories

- Climate Change
- Stratospheric Ozone Depletion
- Eutrophication
- Photochemical Smog
- Acidification
- Human Toxicity
- Eco-Toxicity
- Water Resource Depletion
- Mineral Resource Depletion
- Fossil Fuel Depletion
- Land Use/Biodiversity
- Soil Conservation

SPDS Example of two products



SPDS
Sustainable Product Declaration Sheet

A. PRODUCT INFORMATION

Product Name: Interior Const., Lockers - Virtuon
Model No.:
Functional Unit: 1 square foot for 50 years
Manufacturers Name: Trespa
Address:
City:
State/Prov.:
Zip:
Contact Person: First Last
Phone:
Fax:
Email Address:

B. ENVIRONMENTAL PROFILE SUMMARY

See accompanying detail summary for more information

IMPACT CATEGORIES

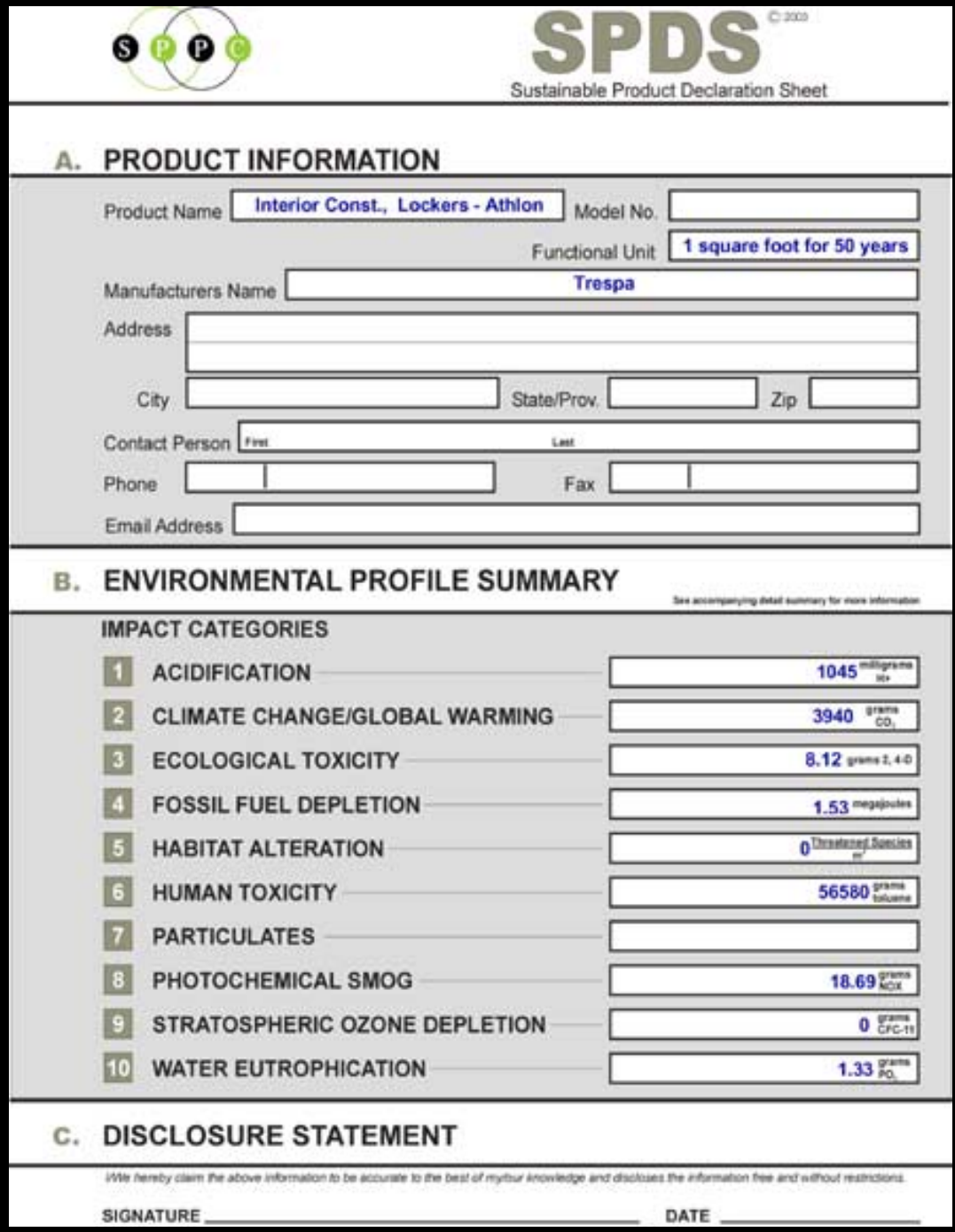
1	ACIDIFICATION	1130 milligrams H^+
2	CLIMATE CHANGE/GLOBAL WARMING	3685 grams CO_2
3	ECOLOGICAL TOXICITY	10.00 grams 2, 4-D
4	FOSSIL FUEL DEPLETION	8.48 megajoules
5	HABITAT ALTERATION	0 Threatened Species m^2
6	HUMAN TOXICITY	60590 grams toluene
7	PARTICULATES	
8	PHOTOCHEMICAL SMOG	19.2 grams NOX
9	STRATOSPHERIC OZONE DEPLETION	0 grams CFC-11
10	WATER EUTROPHICATION	1.34 grams PO_4

C. DISCLOSURE STATEMENT

I/We hereby claim the above information to be accurate to the best of my/our knowledge and discloses the information free and without restrictions.

SIGNATURE _____ DATE _____

SPDS Example of two products



SPDS
Sustainable Product Declaration Sheet

A. PRODUCT INFORMATION

Product Name: Interior Const., Lockers - Athlon
Model No.:
Functional Unit: 1 square foot for 50 years
Manufacturers Name: Trespa
Address:
City:
State/Prov.:
Zip:
Contact Person: First Last
Phone:
Fax:
Email Address:

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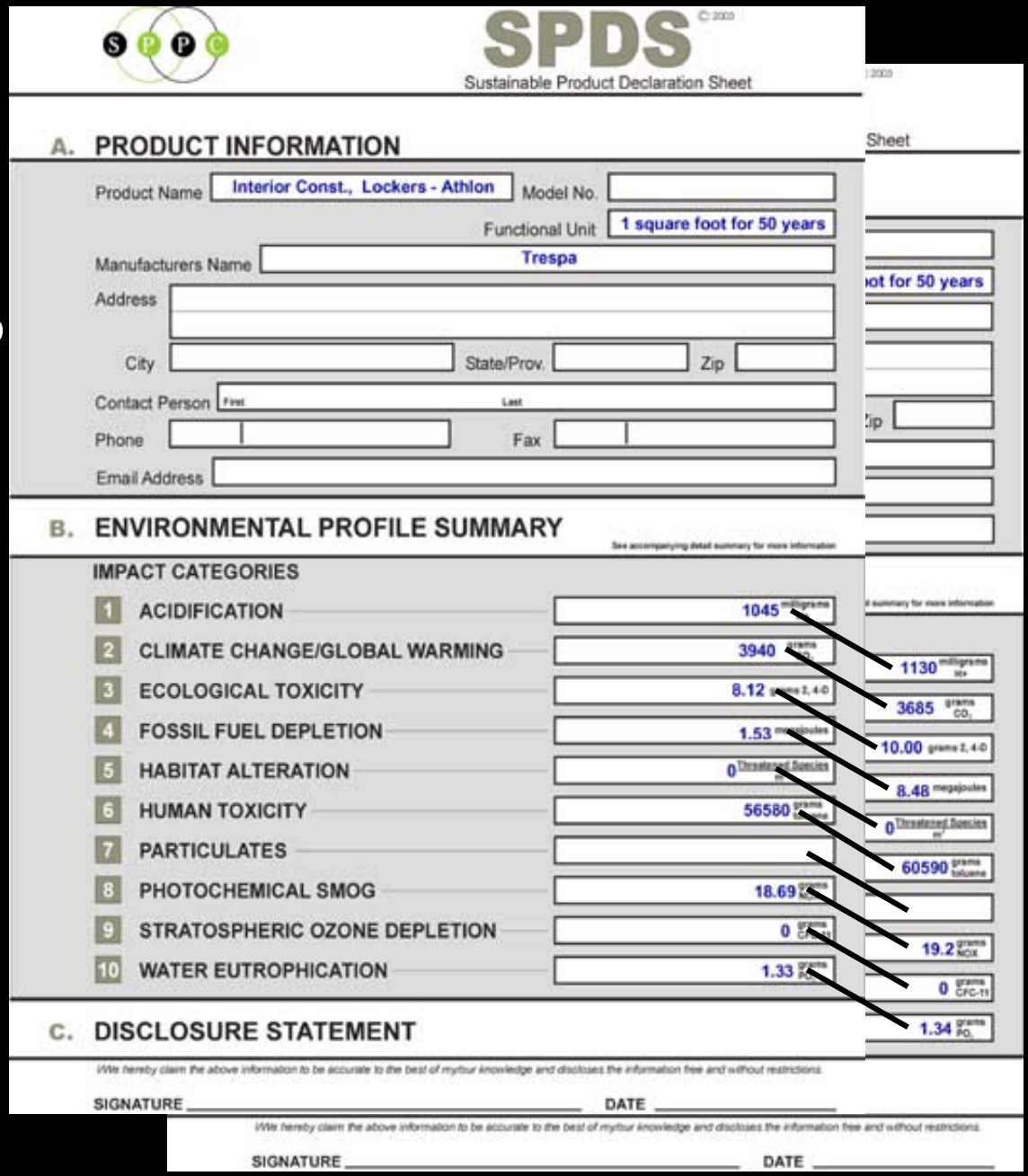

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Address:

City: State/Prov.: Zip:

Contact Person: First Last

Phone: Fax:

Email Address:

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Sheet

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Zip

summary for more information

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SPDS

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Who is the SPPC?

We were incorporated in 2002 as a 501 C (6) non-profit organization.

We are a consortium of organizations interested in sustainable purchasing from the world of:

- Businesses
- Government agencies
- Non-profits

Goals

1. Provide a forum where purchasers can share their problems, solutions, research and product specifications.

Some members may want to use the membership network to find partners for group purchases.

Goals

2. Speak as one voice to suppliers.

As a Coalition, we'll ask manufacturers for life-cycle analysis that provides a full accounting of the environmental and social impacts of their products.

The strength of our numbers will give us leverage to get the information our members need to make informed purchases.

Mission

Act as a Catalyst for the transformation of industry and the marketplace to develop, produce, and consume sustainable products.

Utilize purchasing power to accelerate use of LCA tools to address the current need for product environmental performance data that is:

- consistent
- clear
- concise
- comparable

Membership

A large diverse membership of consumers who specify, purchase, and use manufactured products including, but not limited to:

- Building Materials
- Office Products
- Cleaning Products
- Automobiles
- Furnishings

SPPC Accomplishments

- ✓ Attracted a member base with a purchasing power of $1.4 billion and growing.
- ✓ Created the Sustainable Product Data Sheet (SPDS)
- ✓ Assisted in getting scientists and LCA experts to discuss the need for single format reporting of LCA data
- ✓ Educating the public on LCA and the benefits of Sustainable Purchasing

SPPC
Development Schedule

Phase 1 Web Site -- available now

Phase 2 Comparable LCA data -- November 2003

Phase 3 Economic Indicators -- January 2004

Phase 4 Member Forum -- March 2004

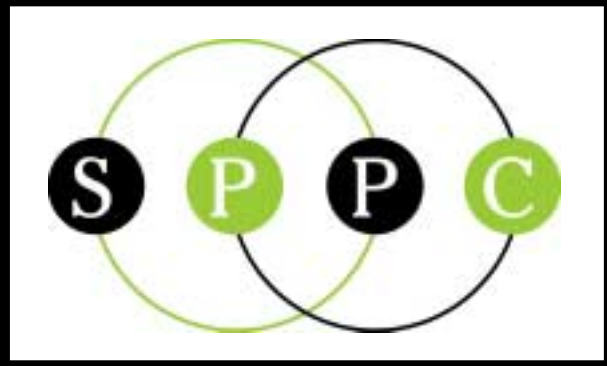
What is Next?

Outreach to Manufacturers

Creating an online members forum for members to share:

- Research
- Product data
- Product selection methods
- Policy language
- Etc…

Allowing our members to have exclusive access to some of the world's finest LCA experts.



Sustainable Products Purchasers Coalition

WWW.SPPCOALITION.ORG

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