



BEST PRACTICE TO SUSTAINABILITY

www.genesisproductsinc.com

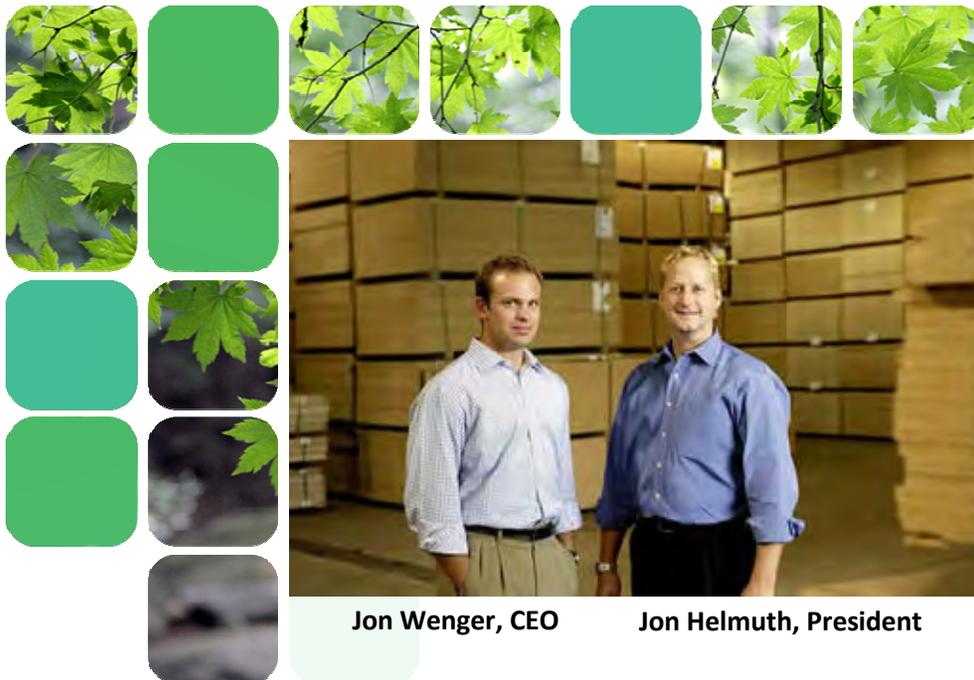


A PRESENTATION BY GENESIS PRODUCTS

All material © Genesis Products, Inc. 2010

Genesis Products history

- **Founded by the Jons in Aug 02**
- **1st product was 100% recycled panel – GenPly™**
- **In 2007 made the Inc. 500 as the 8th fastest growing factory in the U.S.**



Jon Wenger, CEO

Jon Helmuth, President

2003- \$5.7 MM

2004 - \$21 MM

2005 - \$34.6 MM

2006 - \$53.7 MM

2007 - \$59.9 MM

2008 - \$55.4 MM

2009 - \$36 MM

2010 - \$41 MM

2011- \$44 MM (proj.)

"A man generally has two reasons for doing a thing: one that sounds good, and a real one."

— *J.P. Morgan*

Financier and philanthropist



Waste Stream Management

Vinyl film scrap: PVC

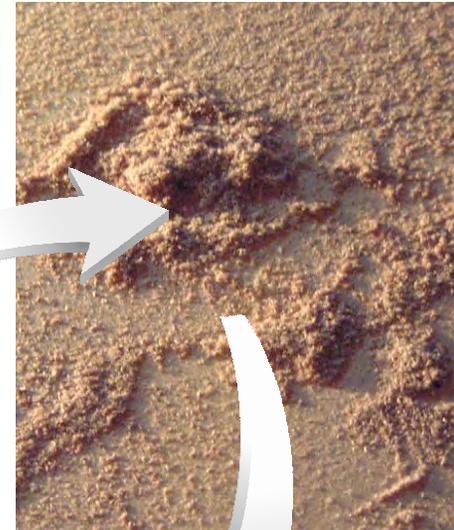
- Sourced an overseas vendor to regrind and resell PVC
- Material is made into flooring products
- Reclaim 528,000 lbs / year



Waste Stream Management

Saw dust

- Negotiated with a local vendor
- Dust is reclaimed for animal bedding
- 16,040,000 lbs / year



Waste Stream Management

Metal banding

- Reclaimed into supply stream
- 520,000 lbs / year



Waste Stream Management

Cardboard packaging materials

- Reclaimed into supply stream
- 264,000 lbs / year
- Initiated returnable packaging system with vendors



Waste Stream Management

Wood skids and pallets

- Ground into landscaping mulch
- 960,000 lbs / year



Waste Stream Management

Office paper waste

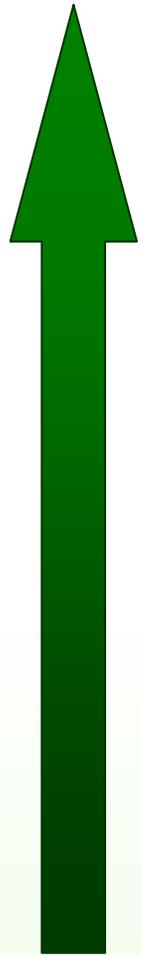
- Reclaimed into supply stream
- 1440 lbs / year



- 1 ream of copy paper (500 sheets) uses 6% of a tree
- 17 reams of copy paper use 1 tree
- A 16-page brochure (5,000 copies) uses almost 5 trees

Waste Hierarchy Model

Most preferred option



1

PREVENTION - DON'T PRODUCE IT

2

MINIMIZATION - REDUCE WASTE IN ALL AREAS

3

RE-USE - USE IT AGAIN (PACKAGING)

4

RECYCLE - REPROCESS MATERIAL (CANS)

5

ENERGY RECOVERY - BURN FOR ENERGY

6

DISPOSAL - THROW IT AWAY

Least preferred option

Unfortunately, Recycling doesn't solve all issues...

Recycling can force products not designed for 2nd use into a downgraded 2nd life-cycle

- Virgin paper (*not well-suited for recycling*) > Recycled content paper > grocery bags > waste
- Plastic bottles (*recycled with dissimilar plastics*) > toys > waste
- Automotive high-tensile steel (*isn't separated*) > downgraded steel > common steel

Recycling puts materials in applications where the source material was never designed

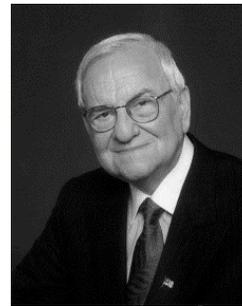
- Plastic bottles > shirts = toxins leach into skin under heat and moisture
- Plastic bottles > carpet = toxins abrade into air and are inhaled



So now what?

"We've got to pause and ask ourselves:
How much clean air do we need?"

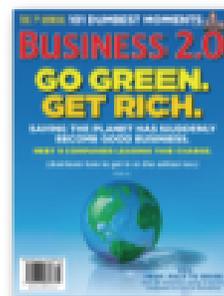
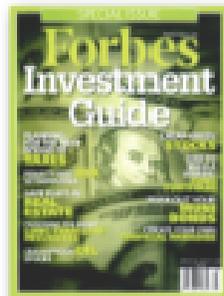
— *Lee Iacocca, CEO*
Chrysler, 1979-1992



Business seeing the Possibilities

Wal-Mart's Goals

- To be supplied **100 %** by renewable energy
- To create **zero waste**
- To sell products that **sustain our resources and environment**



A Public Awakening...



Our Story & Why Sustainability?

- “Green” has been around for a number of years and has always been a value that Genesis has felt is a part of our culture
- We had not focused on how to truly integrate “Green” principles into Genesis
- With the beginning of the Sustainability Coalition and our conviction that Sustainability was a core value, we started to explore making Sustainability a more complete part of Genesis
- Basically, we decided that Sustainability is a *must* and anything else is destructive in the long term

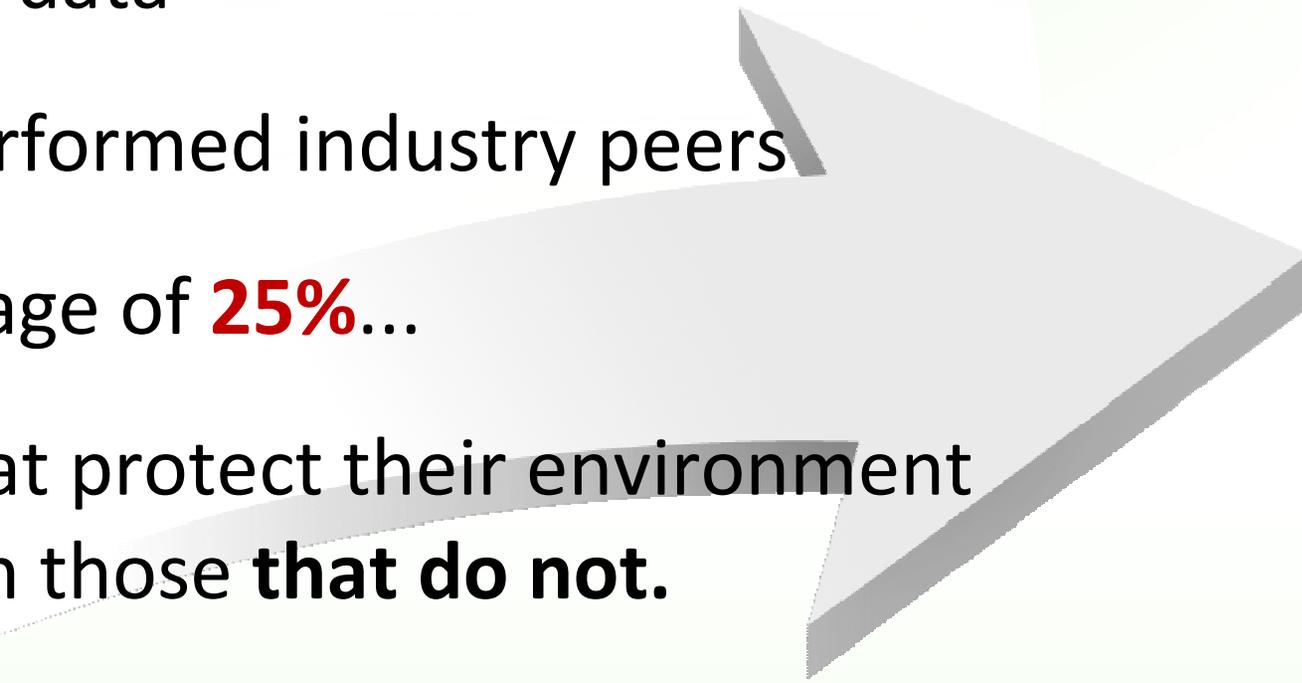
Compelling Business Value

Potential Improvements by Bob Willard, *The Sustainability Advantage*

1. Reduced recruiting costs
2. Reduced attrition costs
3. Increased employee productivity
4. Reduced expenses in manufacturing
5. Reduced expenses at customer sites
6. Increased revenue - market share
7. Lower insurance & borrowing costs

...yielding a profit increase of +38%

Performance against peers

- Dow Jones sustainability Index:
10 years of data
 - **72%** outperformed industry peers
 - By an average of **25%...**
 - Regions that protect their environment
outperform those **that do not.**
- 

What is Sustainability?

Meeting your current needs without compromising future generation's ability to meet theirs

Enough for all forever...

The Emerging Drivers

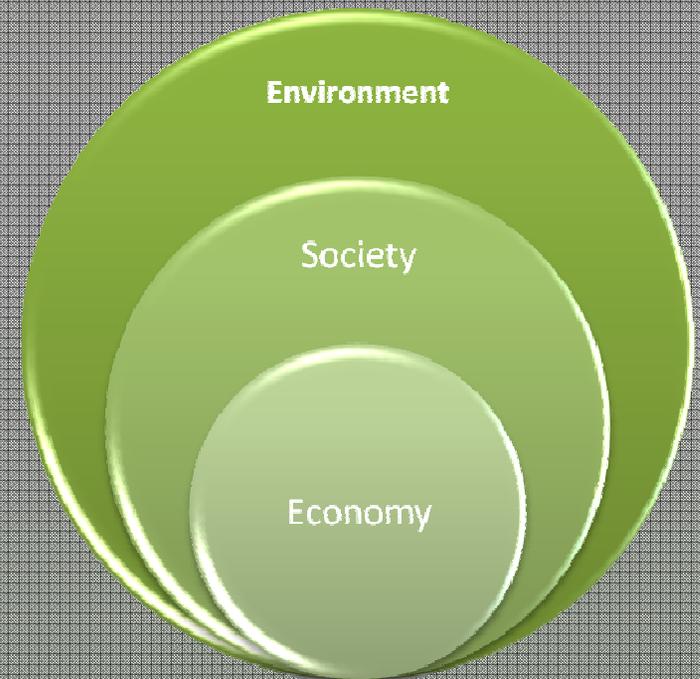
- Climate change
- Pollution/health
- Globalization backlash
- Energy crunch
- Water shortages
- Erosion of trust

A Sustainability Model

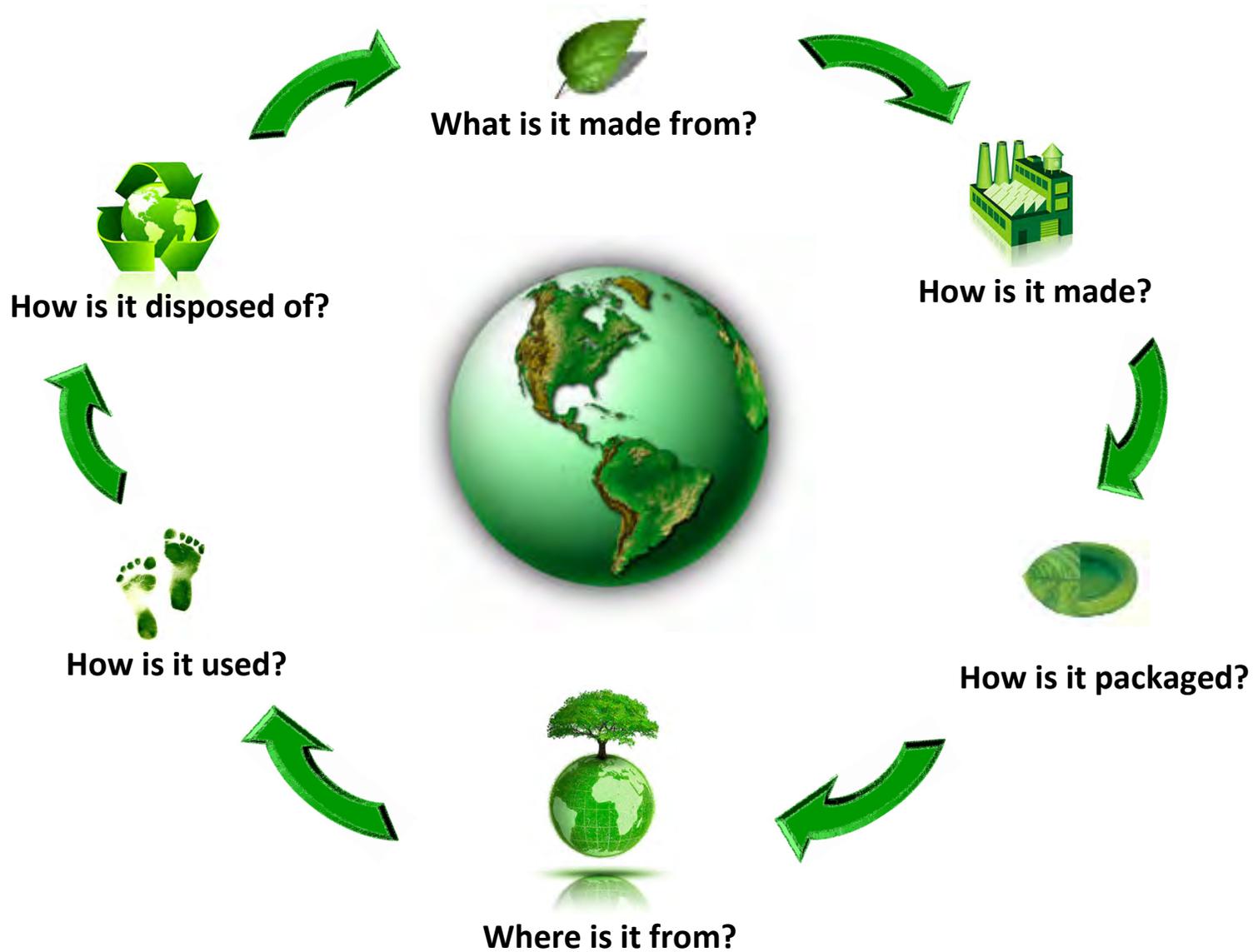


It's really about bringing
3 elements into harmony

- **Environment**
- **Economy**
- **Society**



Life Cycle Assessment



Green vs. Sustainability

Green

- Product and detail focused
- Tactical
- Ecological
- Focus on being less “bad”
- Lacks common definition of success



Bamboo Flooring

Sustainability

- Whole systems focus
- Strategic
- Triple bottom line
- Focus on aligning with:
 - Nature’s cyclical processes
 - Capable of defining success



Oak Flooring

Many shades of Green

The Green certification space is cluttered



SCIENTIFIC CERTIFICATION SYSTEMS
SCS-IAQ-01880



US COMPOSTING
COUNCIL



carbonconcierge

Our Commitment...

- **We are members of The Sustainability Coalition for Elkhart County**
 - 14 businesses building sustainability plans over one year period
 - Promoting a common understanding of sustainability
 - Framework for applying sustainability principles in member organizations
 - Members work collaboratively to develop and give feedback on plans

Education – Collaboration - Innovation



The Sustainability Framework

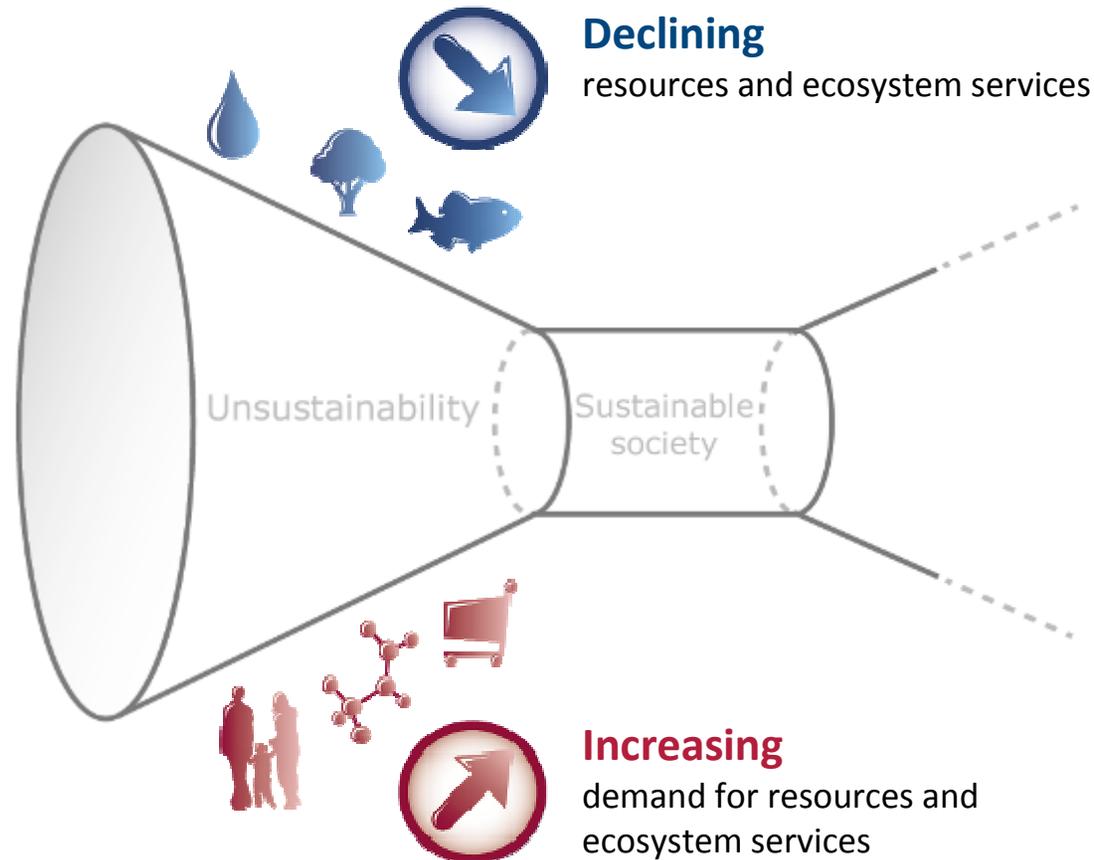
- ✓ Systems Thinking
- ✓ Science based
- ✓ Life Cycle Analysis
- ✓ Strategic Survival
- ✓ Partnership
- ✓ A Plan
- ✓ Proven Triple Bottom Line Results



Who is using TNS for Sustainability Planning?

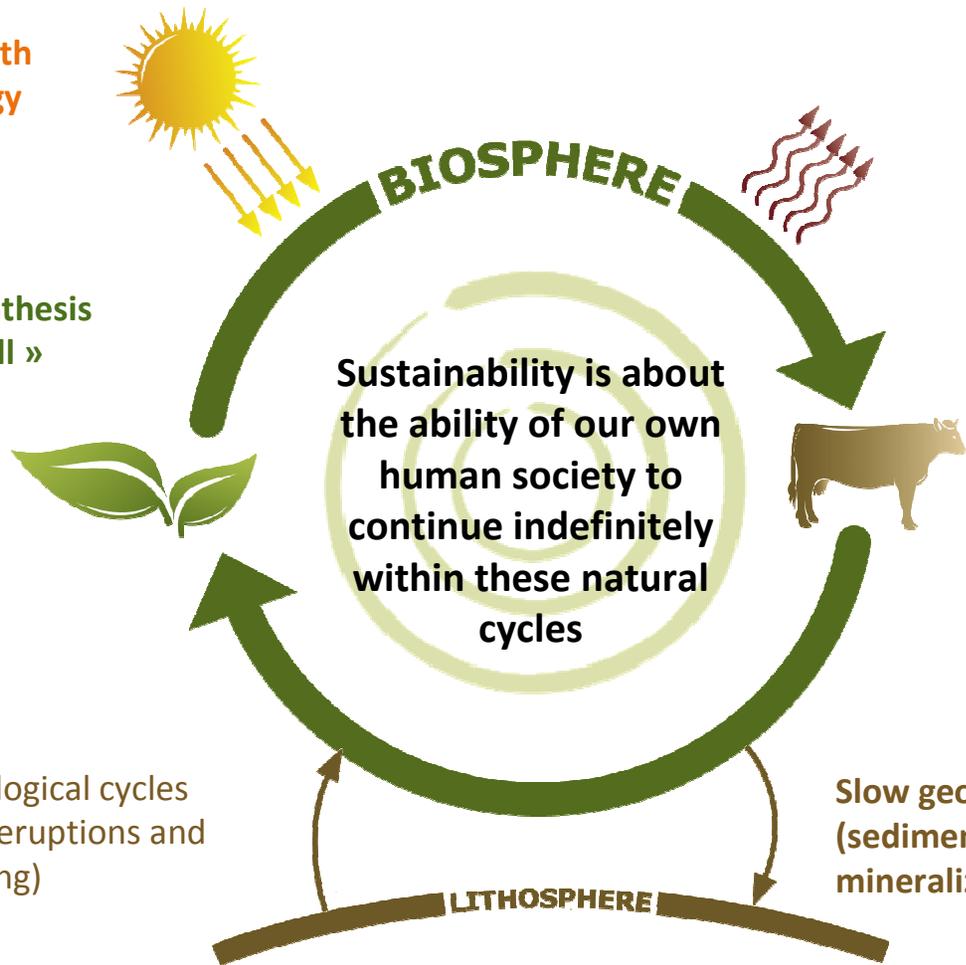


Metaphor of the funnel



Cycles of nature

Open system with respect to energy

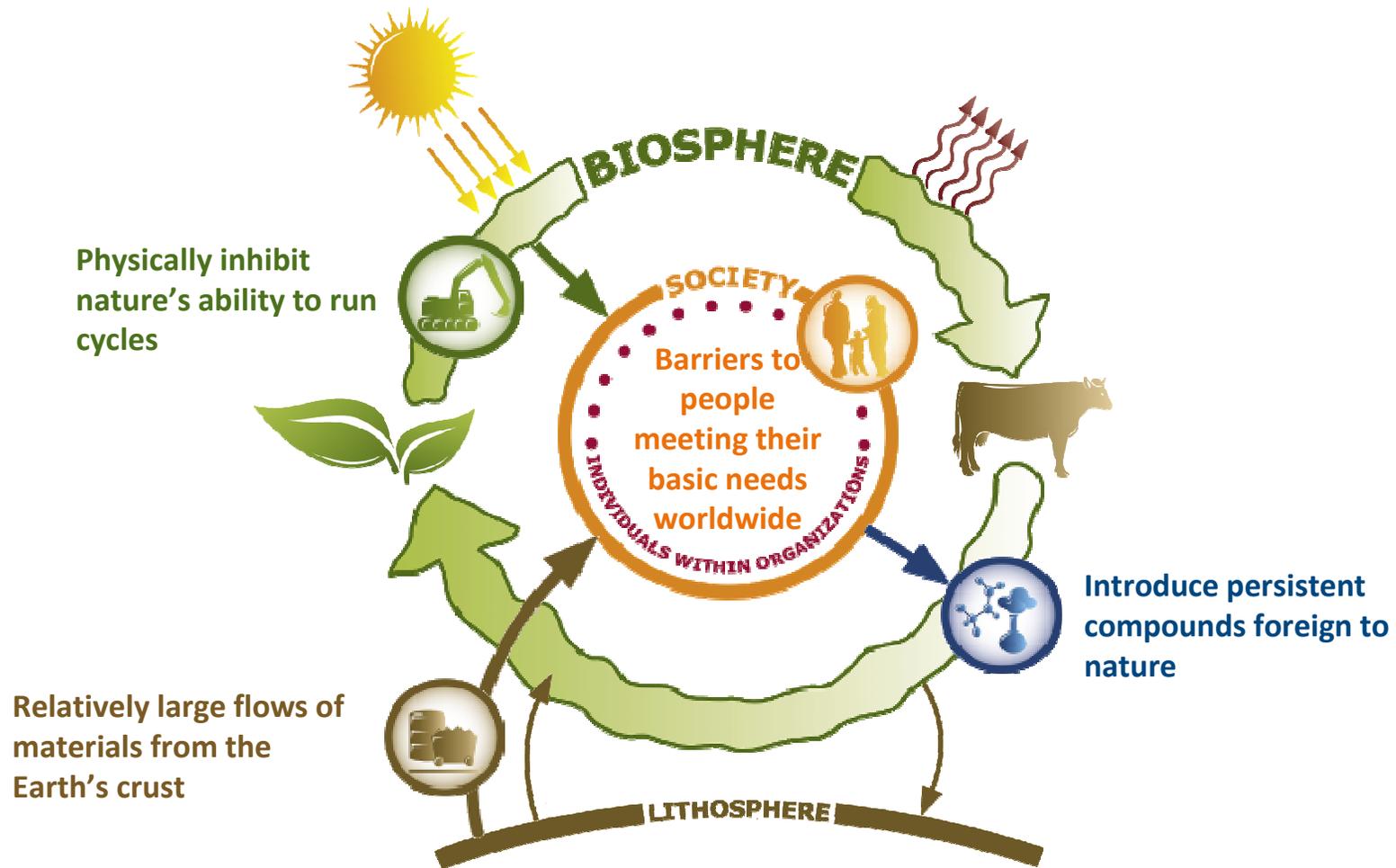


Closed system with respect to matter
1) Nothing disappears
2) Everything disperses

Slow geological cycles
(volcano eruptions and weathering)

Slow geological cycles
(sedimentation and mineralization)

How Humans Influence Cycles



The Best Example



4 System Conditions

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

- 1  ...concentrations of substances extracted from the Earth's crust,
- 2  ...concentrations of substances produced by society,
- 3  ...degradation by physical means,
and, in that society...
- 4  ...people are not subject to conditions that systematically undermine their capacity to meet their needs.

Impacts from Our Industry

| | The Systems Condition | The Violation | The Source | The Impact |
|---|--|---|-------------------------------|---|
| 1 |  Extraction from the Earth's crust | <ul style="list-style-type: none"> - Sales Driving Miles - International Ocean Freight and US Ground Freight for Materials - Heavy use of landfill waste - Coal based electricity - Propane in Forklifts | Oil Coal Mining | Reducing supply & increasing pollution |
| 2 |  Inescapable man-made substances | <ul style="list-style-type: none"> - PVC Films / Panels, composite panels - Solvents in cleaning supplies - Isocyanates in glue | Toxic chemicals | Can be harmful to your health |
| 3 |  Degradation | <ul style="list-style-type: none"> - Use of Wood that is not sustainably forested, card board packaging from Vendors, office paper | Loss of Forest | Fewer ecosystems CO2 Erosion |
| 4 |  Interfering with societal needs | <ul style="list-style-type: none"> - Lack of Controls for work life balance - Room for Safety Improvements - Dust in air for workers - Long work shifts | Customer & Performance demand | More stress, less performance, less happy lives |

Key Sustainability Challenges we have identified and will focus on first



- Non-Sustainably forested plywood



- Plant Electricity Usage - Coal Based



- Use of landfills - need more analysis



- PVC Films

Our Strategic Goals

| Strategic Goals | Possible Measures |
|---|--|
| Get to zero landfill | Tons / Mth of landfill waste |
| Have all products be made from sustainable materials | Identification of non-sustainable materials. \$/Mth of purchases of those materials |
| Obtain all energy from renewable or independent resources | Energy Audit. Mthly Electric & Gas purchases |
| Have each employee progressing in career and life | Happiness surveys & career tracking |
| To continually reduce fuel cost for all activities associated with Genesis | Setup monthly fuel tracking matrix |
| To have every employee involved in community education / development | Employee hrs, Employee %, Company \$ |

Halogenated compounds

chlorodifluoromethane
chlorotrifluoromethane
dichlorodifluoromethane
chloromethane
chloroethane
trichlorofluoromethane
dichloroethylene
Freon 113
methylene chloride
chloroform
trichloroethane
carbon tetrachloride
trichloroethylene
chloropentane
dibromochloromethane
tetrachloroethylene
dichloropropane
chlorobenzene
chlorohexane
iodopentane
3-methyl-1-iodobutane
chloroethylbenzene
dibromodichloromethane
dichlorobenzene
chlorodecane
monochlorobenzene

Alkanes

C₃H₈
C₄H₁₀
C₅H₁₂
C₆H₁₄
C₇H₁₆
C₈H₁₈
C₉H₂₀
C₁₀H₂₂
C₁₁H₂₄
C₁₂H₂₆
C₁₃H₂₈
C₁₄H₃₀
C₁₅H₃₂

Alkenes

C₃H₆
C₄H₈
C₅H₁₀
C₆H₁₂
C₇H₁₄
C₈H₁₆
C₉H₁₈
C₁₀H₂₀
C₁₁H₂₂
C₁₂H₂₄
C₁₃H₂₆
isoprene

Alkynes

C₅H₈
C₆H₁₀
C₇H₁₂
C₈H₁₄
C₉H₁₆
C₁₀H₁₈
C₁₂H₂₂

Aldehydes

acetaldehyde
methyl propanal
n-butanal
methyl butanal
crotonaldehyde
n-pentanal
n-hexanal
furaldehyde
n-heptanal
benzaldehyde
n-octanal
phenyl acetaldehyde
n-nonanal
methyl furaldehyde
n-decanal
n-undecanal
n-dodecanal

Cyclic

cyclopentane
methyl cyclopentane
cyclohexane
ethyl methyl cyclohexane
C₁₀H₁₄ isomers
C₁₀H₁₆ isomers (other)
limonene
methyl
fiscalin
α-pinene
camphene
camphor

Aromatic

benzene
toluene
ethylbenzene
xylene
phenyl acetylene
styrene
benzaldehyde
C₃-alkylbenzene isomers
C₄-alkylbenzene isomers
methyl styrene
dimethyl styrene
C₅-alkylbenzene isomers
naphthalene
C₆-alkylbenzene isomers

Ketones

acetone
methyl ethyl ketone
methyl propyl ketone
methyl vinyl ketone
ethyl vinyl ketone
2-pentanone
methyl pentanone
methyl hydrofuranone
2-methyl-3-hexanone
4-heptanone
3-heptanone
2-heptanone
methyl heptanone
furyl methyl ketone
octanone
acetophenone
2-nonanone
2-decanone
alkylated lactone
phthalide

Furans

furan
tetrahydrofuran
methyl furan
methyl tetrahydrofuran
ethylfuran
dimethylfuran
2-vinylfuran
furaldehyde
2-n-butylfuran
2-pentylfuran
methylfuraldehyde
furyl methyl ketone
Δ-furfuryl alcohol
benzofuran

Other Oxygenated Isomers

C₄H₈O
C₄H₈O
C₅H₁₀O
C₅H₈O
C₆H₁₀O
C₆H₁₀O
C₄H₆O₂
C₆H₁₂O
C₇H₁₂O
C₇H₁₀O
C₇H₁₄O
C₆H₆O₂
C₈H₁₄O₂
C₈H₁₆O
C₇H₈O₂
C₇H₁₀O₂
C₉H₁₈O
C₈H₅O₂
C₁₀H₁₂O₂
C₁₀H₁₄O
C₁₀H₁₆O
C₁₀H₁₈O
C₁₀H₂₀O
C₁₀H₂₂O
C₉H₈O₂
C₁₁H₂₀O
C₁₀H₁₀O₂

Alcohols

methanol
isopropanol
2-methyl-2-propanol
n-propanol
1-butanol
1-pentanol
Δ-furfuryl alcohol
2-ethyl-1-hexanol phenol
2,2,4-trimethylpen(a)-1,3-diol
Δ-terpineol

Acids

acetic acid
decanoic acid

Sulfur compounds

sulfur dioxide
carbon disulfide
dimethyl disulfide
carbonyl sulfide

Nitrogen compounds

nitromethane
C₅H₆N₂
C₅H₈N₂
C₄H₄N₂O
methyl acetamide
benzonitrile
methyl cinnoline

Epoxides

1,8-cineole

Esters

vinyl propionate
ethyl acetate
ethyl-n-caproate
isoamyl formate
methyl decanoate
ethyl decanoate

Esters

dimethyl ether
dihydroxyran

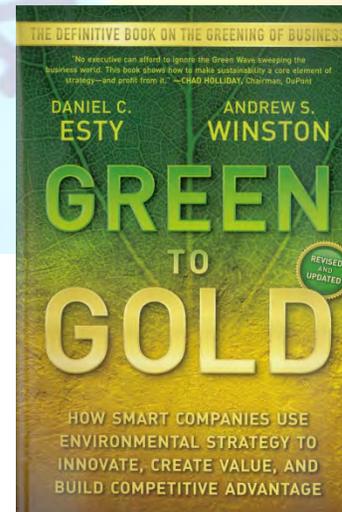
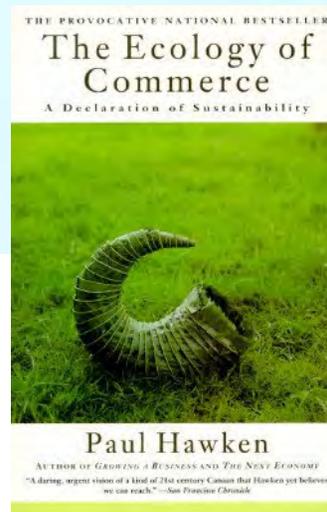
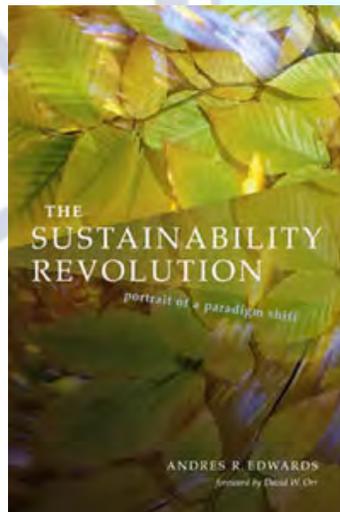
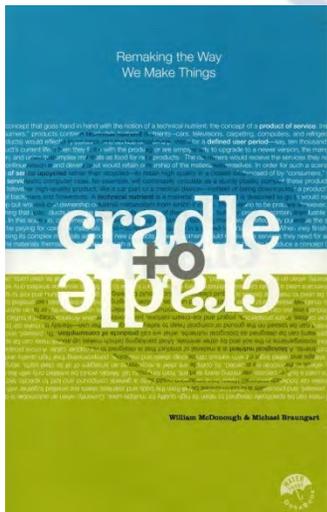
What's in a Vision?

- **Where** do we want to go?
- **What** do we want to achieve?
- **When** do we need to get there?



How to get started...

- Join us on the journey to a more Sustainable future
- You can start where you are. All that is required is:
 - A common framework for approaching the problem
 - A common language
 - Shared understanding
 - Tools to help us find solutions and measure your progress



So...What are we asking?

- Join (or create) a group like **The Sustainability Coalition**
- Go through Sustainability training i.e. **The Natural Step**
- Establish your organization's vision for Sustainability
- Identify and develop projects to implement



What will they say about us in 25 years...?



RV Buddies 2009/2010



More Brownfields?



Purpose, Passion, Vision & Strategy will Determine the Future



SUSTAINABILITY COALITION



EDUCATION. COLLABORATION. INNOVATION.
EDUCATION' COLLABORATION' INNOVATION'

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thank you
Q & A time

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