

Green Purchasing at Rutgers University

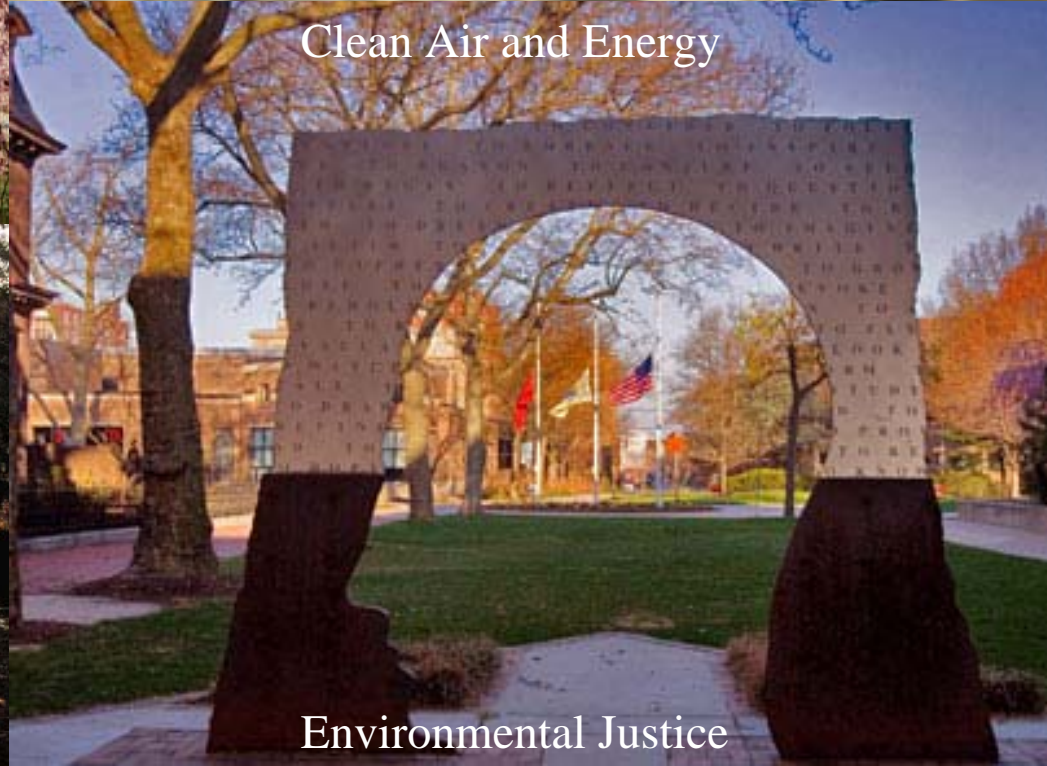
by Kevin Lyons, Ph.D. and Magda Comeau



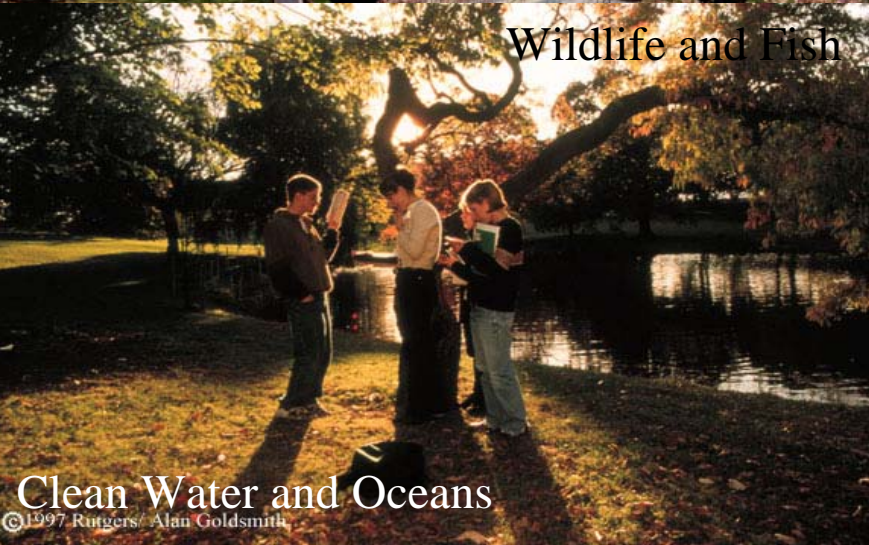
Health and the Environment



Global Warming



Clean Air and Energy



Wildlife and Fish

Clean Water and Oceans

Environmental Justice



- 🌍 Green Purchasing Overview and Definition
- 🌍 University Profile
- 🌍 President's House (Demonstration and Leadership)
- 🌍 Green Purchasing Policy (inside)
- 🌍 Supplier letters (outside)
- 🌍 Our Research
- 🌍 Greening RU RFPs & Contracts
- 🌍 Projects and Initiatives



Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department




klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



Rutgers **Green Purchasing** (1988 – Present)

In order to be good stewards of the environment, we should buy products and services that conserve energy and other natural resources.

Green Purchasing:

-  minimizes negative environmental effects through the use of environmentally friendly products and practices.
-  *is a way of adding environmental considerations to the price and performance criteria that businesses use to make purchasing decisions.*
-  attempts to identify and reduce environmental impact and to maximize resource efficiency.



THE GLOBAL
COMPACT

Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



University and Campus Profile



- Purchasing ... \$400 Million/ Year
 - Higher Ed/US Federal Govt. \$300 Billion/each

- 906 Buildings

- \$62 Million/Yr; Energy

- 10,000 Tons Recycled;**
60% recycling rate →

- **RecycleMania ... Rutgers Wins!**

- **2.8 mil. lbs./10 weeks - Gorilla**

- Asphalt

- Concrete & Demolition

- Auto Batteries

- Auto Tires

- Fluorescent Light Ballasts

- Computers

- Nicad/Lead Acid Batteries

- Corr. Cardboard

- Fluorescent Tubes

- Food Waste

- Glass, Alum., Plastic & Steel Cans

- Lab Chemicals

- Project Concrete

- Mixed Paper

- Motor Oil

- Soil

- Other Paper

- Scrap Metal

- Electronics

- Leaves

- Wood

- Carpeting



THE GLOBAL
COMPACT

Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



Rutgers WINS RecycleMania 2008!!!

Rutgers wins GORILLA PRIZE



In Ten Weeks, Rutgers diverted
2.8 million pounds of recyclables
from ending up in landfills!

Rutgers wins FOOD SERVICE ORGANICS PRIZE

In Ten Weeks, Rutgers sent over
50 lbs of food waste per person to
a local pig farmer to
feed his **HAPPY** pigs!



RecycleMania Climate Impacts

The **58.6 million pounds** of material recycled during RecycleMania 2008 prevented greenhouse gas emissions of 25,342 metric tons of carbon equivalent (MTCE) from entering the atmosphere. This equates to a reduction in greenhouse gas emissions that is approximately equivalent to:

- 15,439 passenger cars not driven for 1 yr
- 9,568,241 gallons of gasoline
- 196,038 barrels of oil
- 11,165 household electricity use for one year (number of households)
- 588 acres of forest preserved from deforestation
- 2,161,441 tree seedlings grown for 10 yrs



Rutgers wins **THIRD PLACE** in
GRAND CHAMPION
63% recycling rate

demonstrating great achievement in both source reduction and recycling



Rutgers places **SECOND** in
Per Capita Classic
71 lbs of total recyclables per person

collecting the second largest amount of acceptable recyclables per person



Rutgers places **SECOND** in
Cans & Bottles Category
19 lbs of bottles/cans per person
collecting the second largest amount of bottles
and can recyclables per person

Celebration Friday April 25th Lunchtime
at all RU Dining Halls and Student Centers

**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



**THE GLOBAL
COMPACT**

University Mission (excerpts) ...

- conducting the cutting-edge research that contributes to the medical, **environmental**, **social** and **cultural well-being** of the state, as well as aiding the economy and the state's businesses and industries; and
- performing **public service** in support of the needs of the citizens of the state and its local, county, and state governments.

Rutgers Green Purchasing Policy <http://purchasing.rutgers.edu/green/>

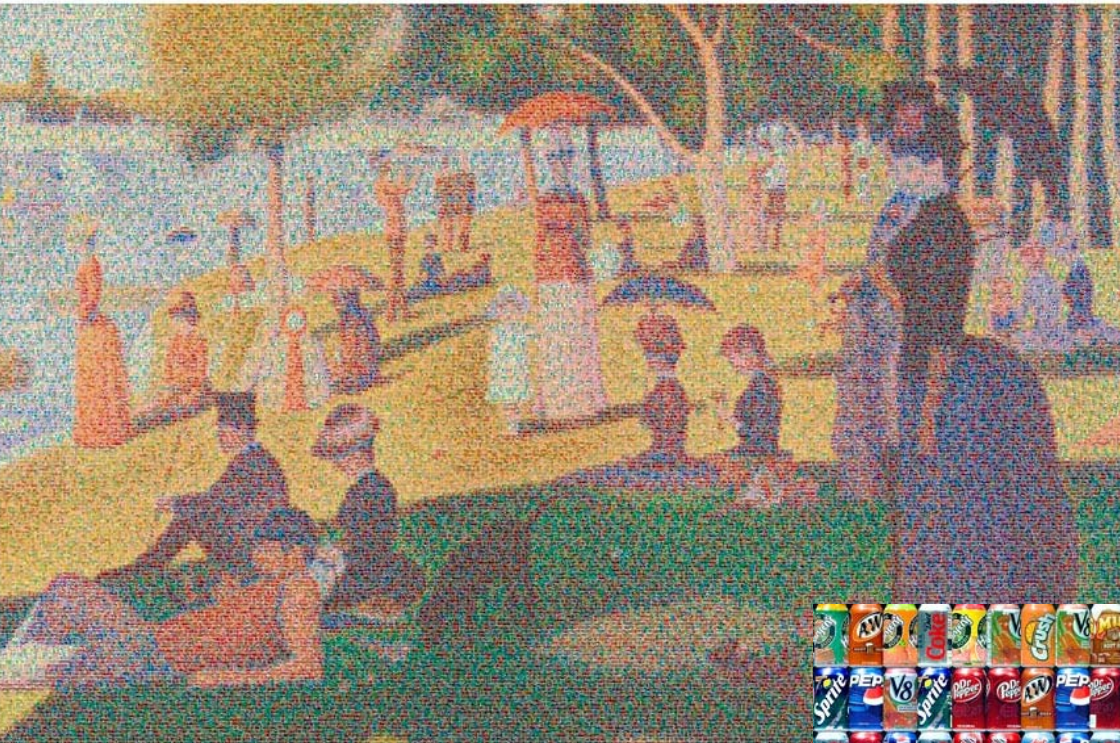


Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



THE GLOBAL
COMPACT



Cans Seurat, 2007

(Artist: Chris Jordan)

Depicts 106,000 aluminum cans, the number used in the US every thirty seconds.



University President's House (Draft Plan)

Solar Panels

Interior:

- Cleaning Chemicals
- EMS
- Appliances
- Recycling
- Lighting
- Reuse bags



Landscaping:

- Alt Fuel Vehicles
- Rain Garden
- Native Plants
- Grey Water

Food:

- Veggie Garden
- Co-op Garden
- Local Farms

Rutgers Green Purchasing Policy and Guidelines

A. Goal

In accordance with the University's Purchasing Policy, Rutgers is committed to the use and purchase of environmentally and socially responsible materials and products. Departments are expected to support this policy in accordance with established guidelines and procedures contained in this Green Purchasing Policy. This document is a way in which Rutgers' procurement decisions are made using multiple factors. These procurement decisions include economic criteria as well as strong commitments towards environmental protection.








B. Assessment of Current Status and Opportunities

The Rutgers' Purchasing Department and those Administrative Units with delegated purchasing authority are responsible for the procurement of goods and services for the entire Rutgers University System.

Selected Goals:

- To develop and maintain a consistent 'cradle-to-cradle' supply chain and purchasing process which considers economic, ethical, social and environmental impacts for all contracts and purchases; where all waste should first be eliminated or avoided and where any remaining waste be considered feedstock for new product development.
- To integrate green purchasing concepts and products into architectural designs, final construction documents and into the final construction of all Rutgers buildings, renovations of property or facilities owned by Rutgers.
- To utilize environmentally responsible biodegradable solvents and citrus-based, rather than oil-based, cleaners.
- To utilize bio-based products, fuels and solvents (e.g. soy-based inks and lubricants).
- To purchase equipment and fleets which utilize alternative fuel and/or alternative environmentally responsible energy methods; target and help Rutgers develop new sources of alternative fuel that can be produced at Rutgers utilizing Rutgers waste.
- To conduct research and procure alternative energy from reliable, certified alternative energy suppliers.
- To make use of recycled paper; used paper is turned into scratch pads for distribution to departments on campus.
- To procure recycled content office supplies (folders, writing pads, etc.).
- To procure environmentally responsible and ergonomically designed furniture and furnishings including floor coverings and window treatments.
- To reuse packing material and plastic bags.
- To comply with New Jersey State recycling policies and regulations and identify, implement and record data for new categories of recycling.
- To increase recycled content offerings across all commodities.
- To recycle ink and toner cartridges.

Green Purchasing Policy

-  Consumption (is it needed?)
-  Cradle-to-Cradle concepts (more than price!)
-  Green Buildings (Design, Construction, Renovation)
-  BioBase, Biodegradable, etc.
-  Fleets and Transportation
-  Energy
-  Corporate Social & Environmental Reporting



Self Storage Industry Statistics United States

- fastest-growing sector of US commercial real estate over the last 30 years
- \$220 billion industry
- 1 in 10 households rent storage space (a 65% increase within past 12 years)
- 2 billion square feet or 78 square miles (3x Manhattan)
- “There are 6.86 sq. ft. of self storage space for every man, woman and child in the nation; thus, it is physically possible that every American could stand – all at the same time – under the total canopy of self storage roofing.”
- first billion square feet of space → 25 years
- second billion square feet → 8 years (1998-2005)



Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu





Purchasing Department
Rutgers, The State University of New Jersey
Administrative Services Building III
Three Rutgers Plaza • New Brunswick • New Jersey 08901-8559
732/932-4370 • FAX: 732/932-4390

September 1, 2006

Dear

In an effort to further our goals with regards to purchasing 'green', environmentally preferable products and services, the University Purchasing Department is requesting its (contracted) Exchange suppliers to provide 'green' company and product information. The U.S. Federal Government describes 'green' or environmentally preferable products or services as those products or services that have a reduced impact on human or environmental health as compared to competing not environmentally preferable products or services. Therefore, Rutgers University's goal is to be a leader in green purchasing and to that end we will seek out all opportunities to provide preference to cost effective, high quality environmentally preferable products and services. As a contracted supplier to the University you have a role to play in our goal to become a leader in green purchasing. Please provide all information and strategies that you can share that will assist the Purchasing Department in promoting and acquiring environmentally preferable products and services.

Criteria we will be considering when we procure an item will be:

- The availability of the item; the potential impact of procurement on the solid waste stream
- The economic and technological feasibility of producing the item; and
- Other uses of the recovered materials used to produce the item.
- Ethics and Socially Responsible policies and practices (*See Seven Principles Below*)

What kind of products do you currently have and/or are willing to acquire that fall in line with this criteria? How easy will it be for the university to find these products on your website? How quickly will they ship in relation to similar traditional products? Please provide us this information either via email, link to a website that you may currently have in place; or via regular mail (keeping in mind conservation of paper). Items you may want to share could include:

- Company/Corporate annual report (current or prior year) highlighting current 'green' initiatives
- Documents presenting ideas for new 'green' initiatives
- Company/Corporate policies regarding office recycling, reducing packaging, etc.

For your information, we have attached a short overview of the environmentally preferable purchasing mindset. If your company does not have a policy or initiative in place currently, we would be happy to

work with you to develop a plan that fits your company's specific needs. We are hopeful that your organization will work with us to meet and exceed our goals for high quality results as you are members of a preferred elite group of suppliers with a unique relationship to the university purchasing environment. Please refer any questions and all documents to the attention of Magda Comeau at the address listed above or by email to mcomeau@rci.rutgers.edu.

Sincerely,

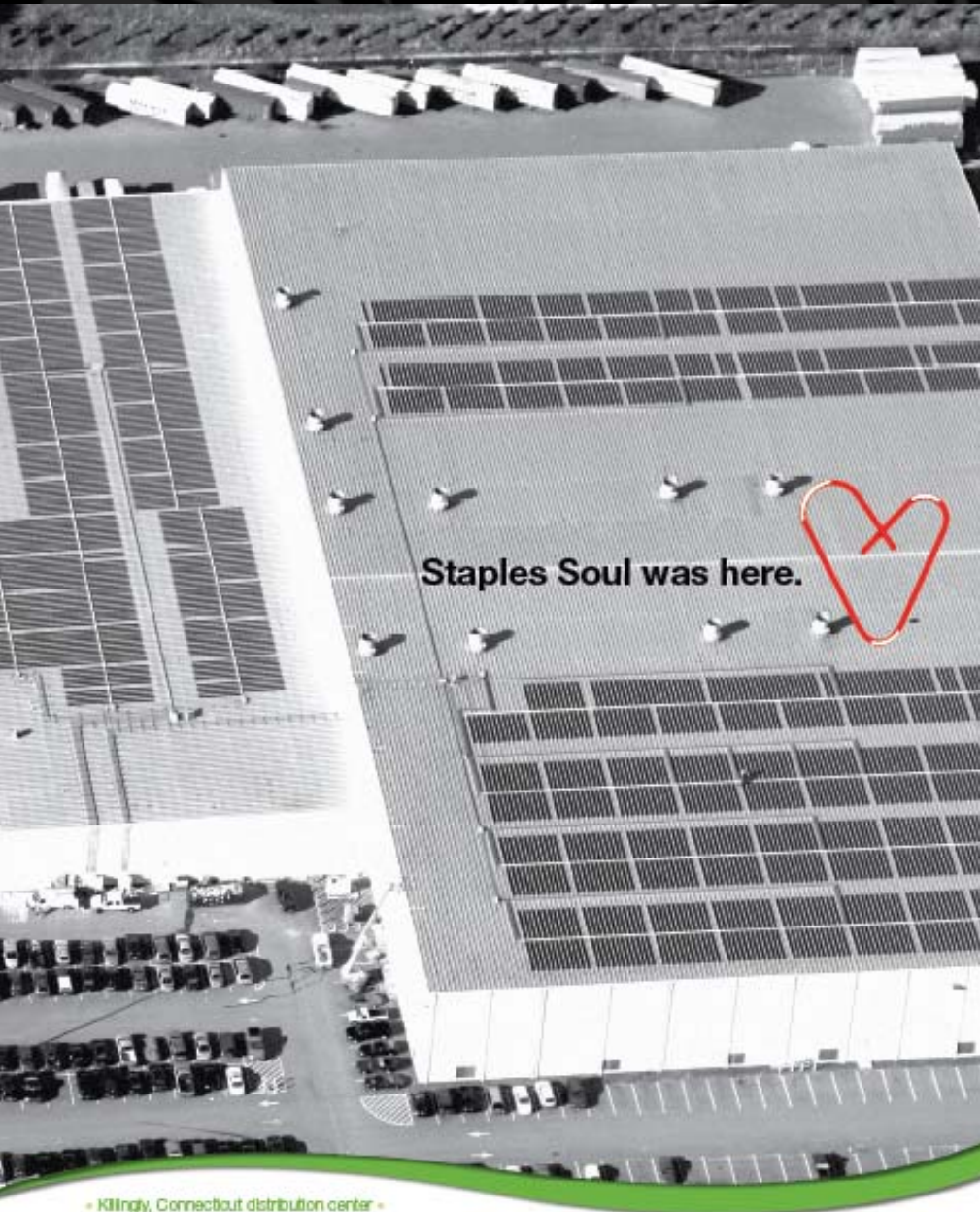
Kevin Lyons, Ph.D.
Director of Purchasing



The Seven Principles of Corporate Social Responsibility

Social responsibility is defined as "a framework of measurable corporate policies and procedures and resulting behavior designed to benefit the workplace and, by extension, the individual, the organization, and the community."

- I. **Community**
 1. Provide support and add value to our local communities and those of our supply chain.
 2. Encourage members of our supply chain to add value in their communities.
- II. **Diversity**
 1. Proactively promote purchasing from, and the development of, socially diverse suppliers.
 2. Encourage diversity within our own organization.
 3. Proactively promote diverse employment practices throughout the supply chain.
- III. **Environment**
 1. Encourage our own organization and others on campus to be proactive in examining opportunities to be environmentally responsible within their supply chains, either "upstream" or "downstream."
 2. Encourage the environmental responsibility of our suppliers.
 3. Encourage the development and diffusion of environmentally friendly practices and products throughout our organization.
- IV. **Ethics**
 1. Be aware of Institute of Supply Management's Principles and Standards of Ethical Supply Management Conduct.
 2. Abide by our organization's code of conduct.
- V. **Financial Responsibility**
 1. Become knowledgeable of and follow applicable financial standards and requirements.
 2. Apply sound financial practices and ensure transparency in financial dealings.
 3. Actively promote and practice responsible financial behavior throughout the supply chain.
- VI. **Human Rights**
 1. Treat people with dignity and respect.
 2. Support and respect the protection of international human rights within the organization's sphere of influence.
 3. Encourage our organization and its supply chains to avoid complicity in human or employment rights abuses.
- VII. **Safety**
 1. Promote a safe environment for each employee in our organization and supply chain. (Each organization is responsible for defining "safe" within its organization.)
 2. Support the continuous development and diffusion of safety practices throughout our organization and the supply chain.



RECYCLE • REUSE • REDUCE



WASTE REDUCTION




Our packages are a small part of the nation's waste stream but we want them to be an even smaller part. So, we're making our packages lighter, using more recycled material, and actively promoting comprehensive recycling.

Biodiesel Used in Staples Truck



Green Purchasing Research



- 
Product Development, Design, Performance, & Cost
 - Environment and Health Impacts – Eco-Labeling
 - Total Cost of Ownership
 - Global Commodity Trends
 - Raw Material Data (Marketplace Availability and Eco-Impacts)
 - Green Products and Services Data (**eProcurement/Oracle**)
 - Competitive Procurement Process and Strategic Sourcing
 - Green Contract Language and Evaluation Criteria
 - End of Life Data (**Waste Management/Recycling**)



Shredded material prepared for recycling

- 
Annual Spend (Bottom-line Expectations)
 - Life Cycle Assessment/Cost
 - Return on Investment - ROI



- 
Corporate and Organizational Reporting (Sox and Environmental Reporting)

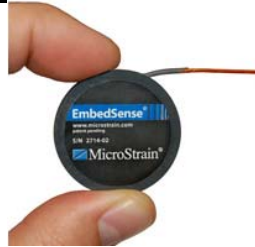
**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu

Green Purchasing and Waste Research

Supply Chain Archeology



*A Supply Chain
Manager's and
Purchaser's
Perspective On:*

*Understanding the
History, Behavior,
Movement and
Business of Waste;*



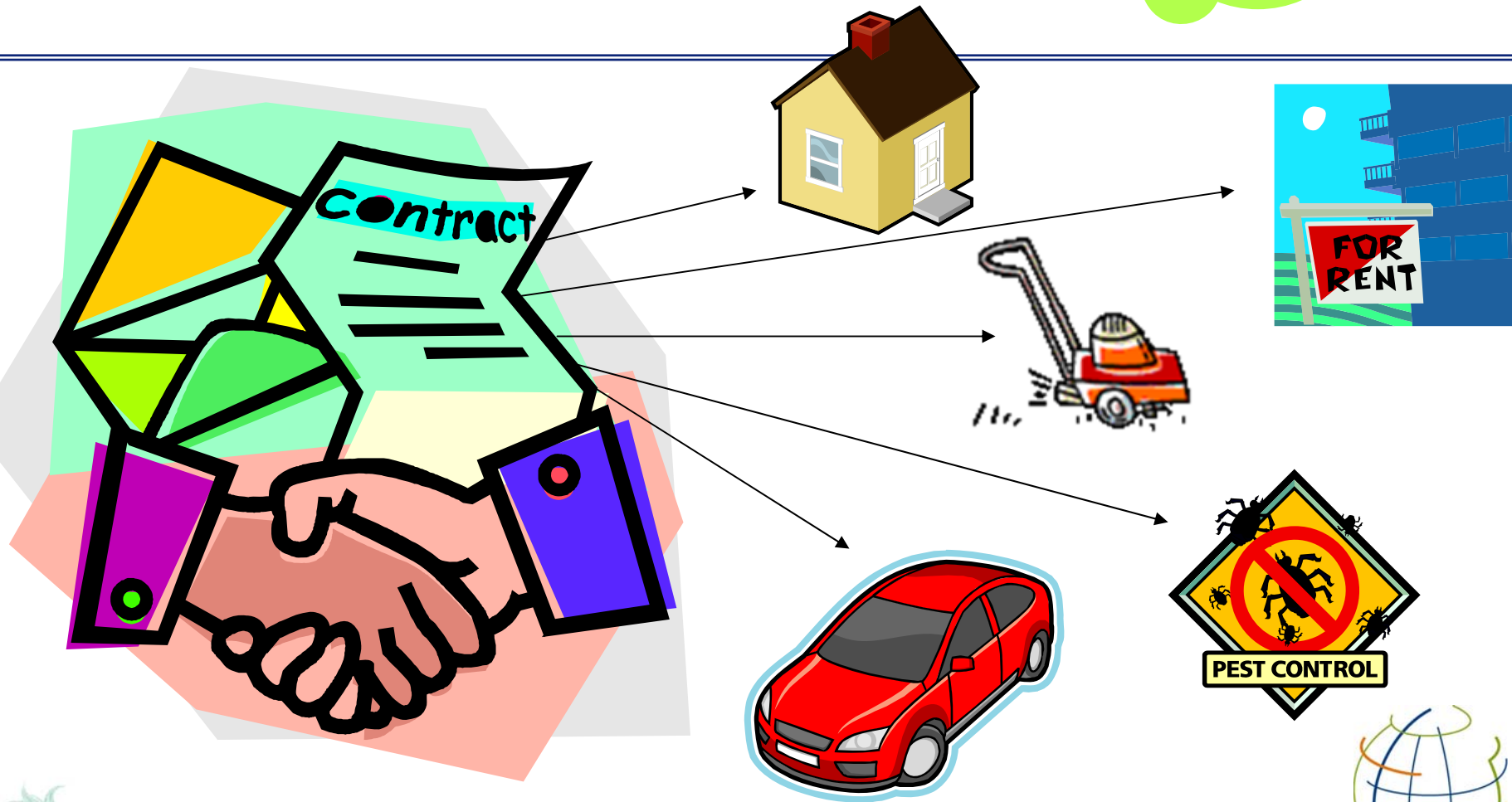
*Consumerism, Consumption and the Linking and Integrating of
Solid Waste into the Supply Chain Management Process*

**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



The Contract...



- 🌐 Green Purchasing Policy/University Mission (Introduction)
- 🌐 Criteria (Applied Green Purchasing Research)
 - Manufacturing Process – Supply Chain
 - Raw Materials, Global Markets, Environmental Impacts
 - Waste Management, Waste Flows, Packaging Extended Product Responsibility
 - Environmental Impacts (Air, Water, Land, Health, etc.)
 - Risk Management and Analysis (Rutgers Personnel)
- 🌐 Corporate Social and Environmental Reporting
- 🌐 Economic/Financial
 - Cost Benefit Analysis, Life Cycle Analysis/Costing, ROI
- 🌐 Supplier Diversity
- 🌐 Product and Supplier Performance
- 🌐 Cooperative Purchasing (Local, State, Global)

Computer Storage Problem!



A sea of television housings, cathode ray tubes, computers, monitors and other imported electronic waste not salable at the Alaba market in Lagos, Nigeria, is dumped here in a nearby swamp. (*Image: 4969*)© *Basel Action Network*



Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



THE GLOBAL
COMPACT

Rutgers Computer Recycling



Shredded material prepared for recycling

HP Printers From Recycled Materials



**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



Dr. Tom Nosker

Center for Advanced Polymers
Rutgers School of Engineering
www.amipp.rutgers.edu



Rutgers Green Purchasing Cooperative

“As purchasing professionals become more active in local issues, it will show that purchasing does have a multidimensional appeal and can embrace a social agenda.” Buying for the Future



**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department
klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu





Rutgers, The State University of New Jersey

THE RUTGERS 'GREEN' PURCHASING COOPERATIVE PROGRAM GUIDE

Author: K. Lyons, M. Comeau
Creation Date: March 15, 2007
Last Updated: November 15, 2007

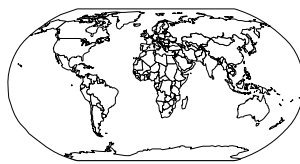


Sample Green Contracts:

- Recycled Content Paper
- Green Cleaning Chemicals and Custodial Maintenance Products
- Bulk PC/Laptop Purchasing Program
- Phone/ VoIP Services
- Biodiesel Fuel
- Bulk Printer Purchasing Program
- Recycled Content Trash Bags
- Emergency Notification System
- Ice Melt
- Office/Conference Room Furniture
- NJ State Green Contracts
- E&I Green Contracts

Rutgers/Island School (Cape Eleuthera, Bahamas); www.islandschool.org





THE LAWRENCEVILLE SCHOOL

Bogotá



eProcurement/SCM System
Development (ISO 14001 Impact
Coding/Merge with MSDS/EMS
Coding; including RFID/Bar Coding,
Smart LCA-Product
Technology/Labeling, etc.)



WACHOVIA

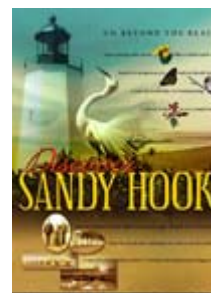


“Consumption”
“EcoFootprinting”

Office of the
Federal Environmental Executive

Promoting sustainable environmental stewardship throughout the federal government

Federal Government Partnerships;
OFEE/EPA; EO 13101



University of Oxford

Highland Park, NJ

Highland Park
(NJ) ESP
Implementation
Project



THE GLOBAL
COMPACT

Purchasing
for the
Greener Goods

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu

Buying Green Becomes Top Priority

Using consistent strategy and philosophy, a supply manager achieves amazing results to procure ecofriendly products for his purchasing dollars.

Cindy Rovins

ORIGINATIONS Buying green isn't a concept that you dump down people's throats as it is a problem to solve by showing money at it. When the numbers match, when each

WHERE INNOVATIONS BEGIN With all this in place, this is where the innovation begins. States Lyons. "It's all about inspiration, it's all about sharing your needs. Come in, please."



RUTGERS

CURRENT ISSUE MAY 30, 2007 | ARCHIVE

FOCUS

The Faculty and Staff Publication of Rutgers

BACK TO FOCUS HOME | SUB

CAMDE

Archived article from February 07, 2007

ON CAMPUS

Rutgers leads the way in "green" purchasing

Environmentally-friendly products and companies are the preferred choice

By Ashanti M. Alvarez



MTV ANNOUNCES RUTGERS AND CORNELL AS
GRAND PRIZE WINNERS IN *thinkMTV*'s
BREAK THE ADDICTION CHALLENGE

Winning Universities Receive MTV Eco-Renovation of Student Center
Worth Up to \$10,000 Each

- Green Purchasing Interns
- RecycleMania
- Green Office Demonstration Sites
- Classroom Renovation Committee
- University Sustainability Committee
- Supply Chain/Green Purchasing Research (GP Institute)
- University ISO 14001 Certification
- Develop Product Climate Rating profiles
- Carbon Trading (RECS) – Training (Purchasing Professionals)
- Climate Change/Global Warming Research Initiative
- Publish Rutgers Data and Ecological Footprint Profile

- Solar Farm
- Waste-to-Diesel
- Farm-to-Dining

**Purchasing
for the
Greener Goods**

Kevin Lyons, Ph.D., Magda Comeau, Purchasing Department

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu



**THE GLOBAL
COMPACT**

Get Involved!

Where do you see your role in this community?



**Purchasing
for the
Greener Goods**

klyons@rci.rutgers.edu, mcomeau@rci.rutgers.edu