

Concept and Significance of Green Purchasing

Its Role, Effects, and Experiences in Japan

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Green Purchasing Network (GPN), Japan

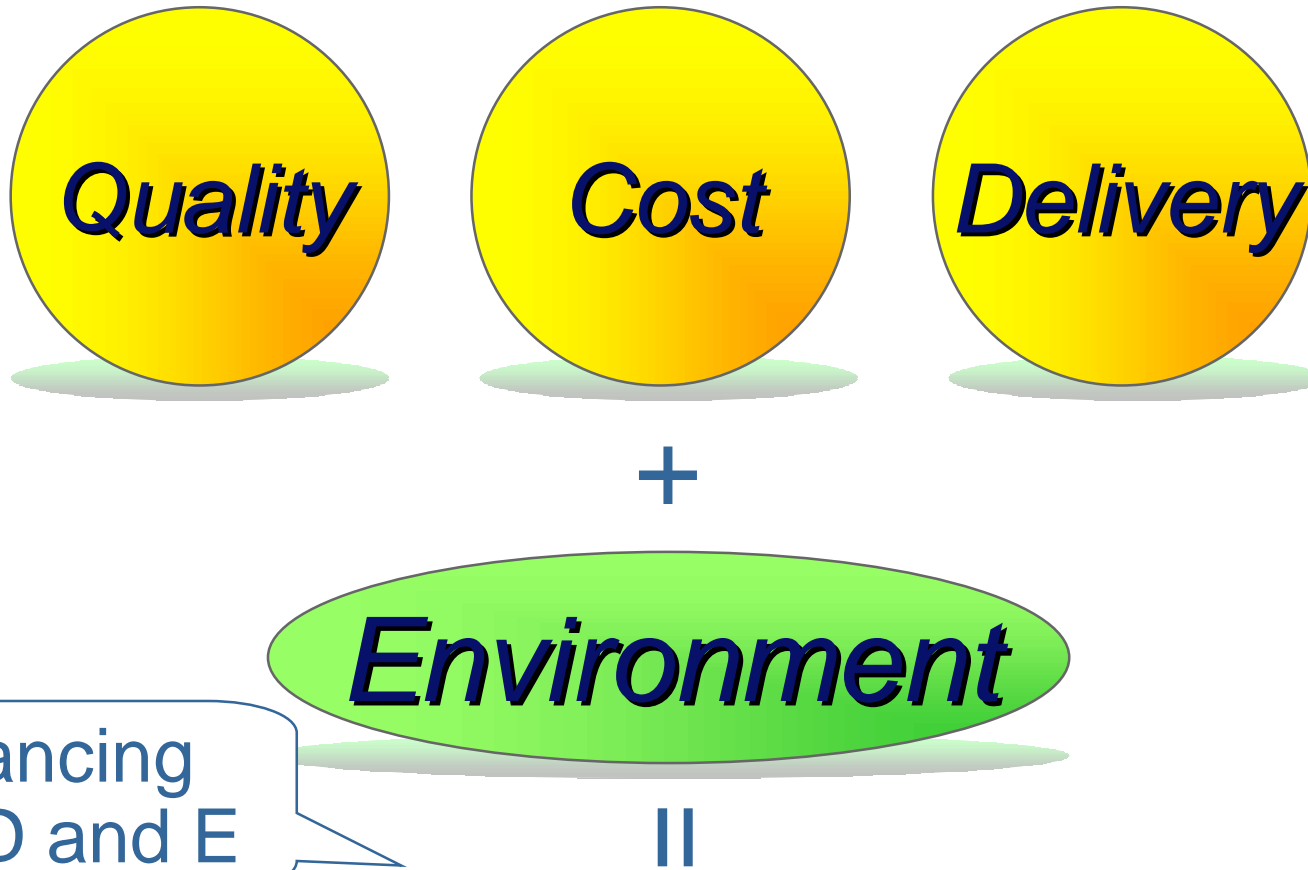




Structure of the Presentation

- **Concept and role of Green purchasing**
- **Green Purchasing in Japan**
- **Market Impact of Green Purchasing**
- **Barriers and Benefits of Green Purchasing**
- **Conclusions**

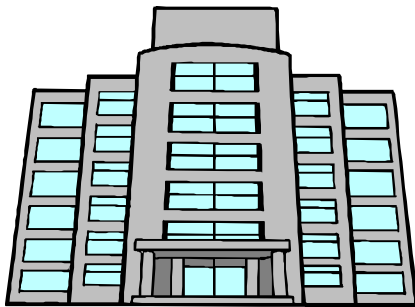
What is “Green Purchasing”?



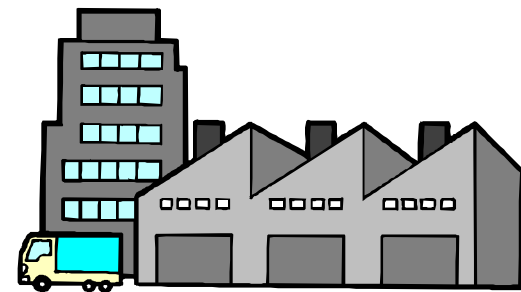
Green purchasing

Who are players?

Government



Corporation



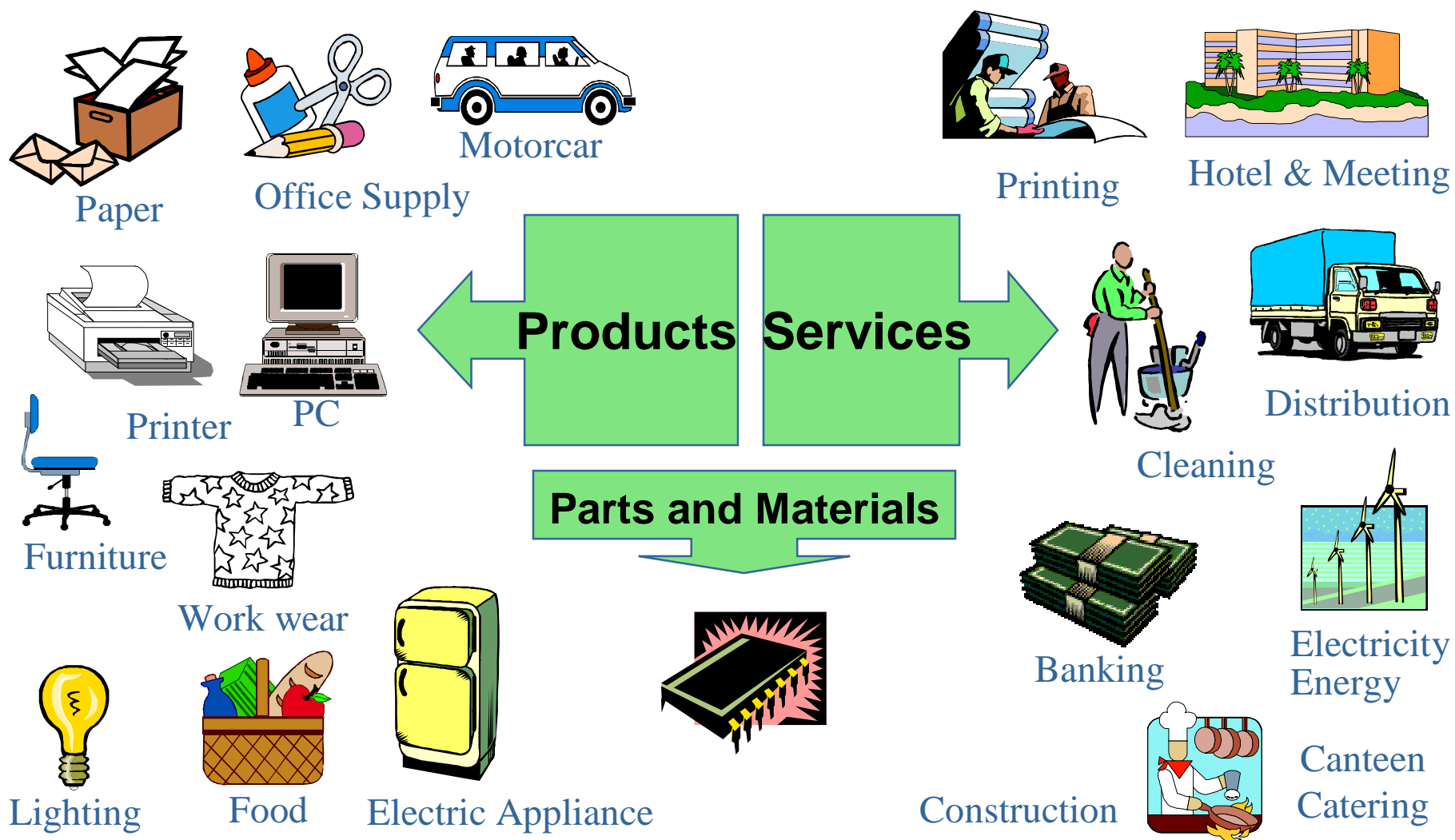
Consumer



Green consumer

- Anyone can take the initiative!

Target fields of Green Purchasing



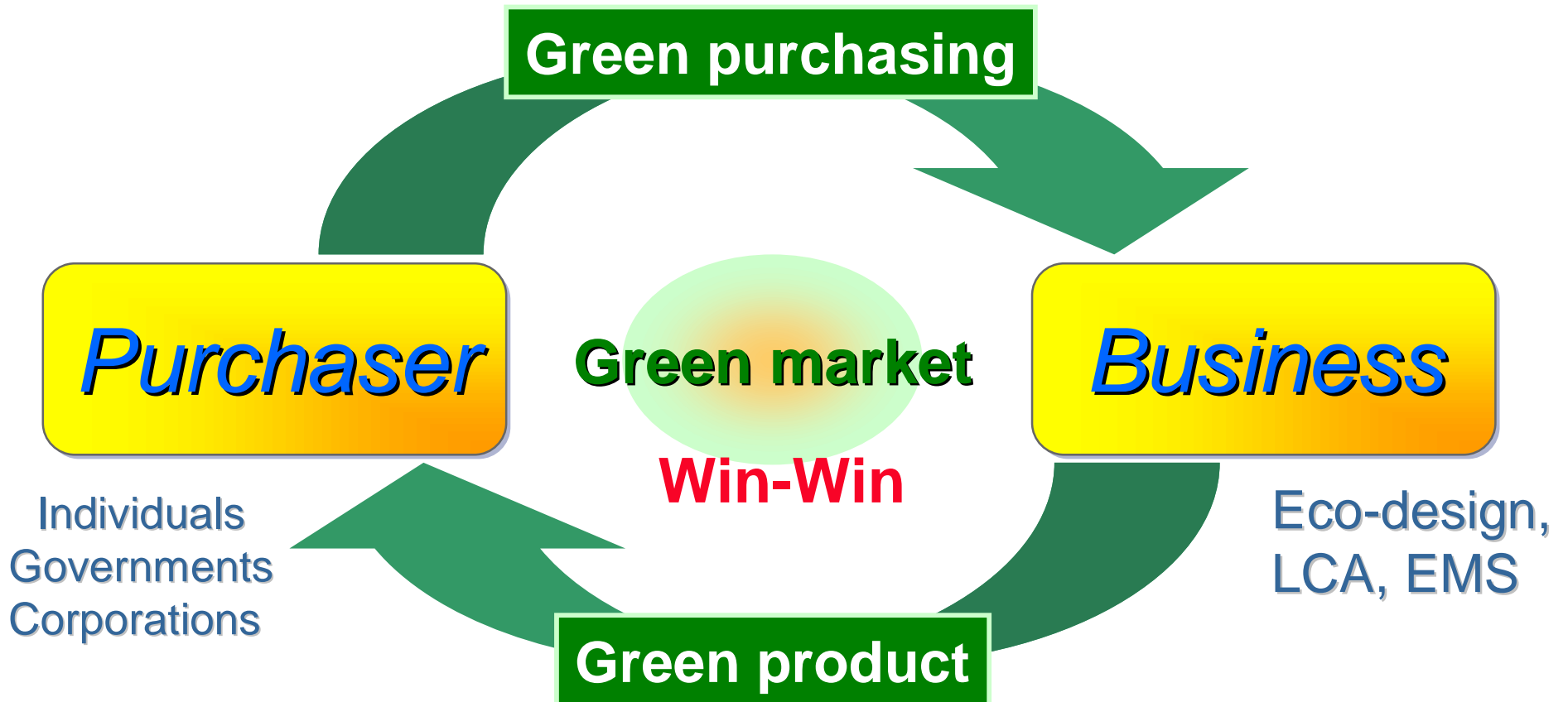


Principles of Green Purchasing

- **Principle 1** – Consider whether a product is needed **before purchasing** it or not.
- **Principle 2** – **Purchase a product** considering the various environmental impacts over its life cycle - from extraction of raw materials to disposal.
- **Principle 3** – **Select suppliers** who make a conscious efforts to care for the environment.
- **Principle 4** – **Collect environmental information** on products and suppliers.

Established by Green Purchasing Network(GPN)

Green purchasing & Green Business



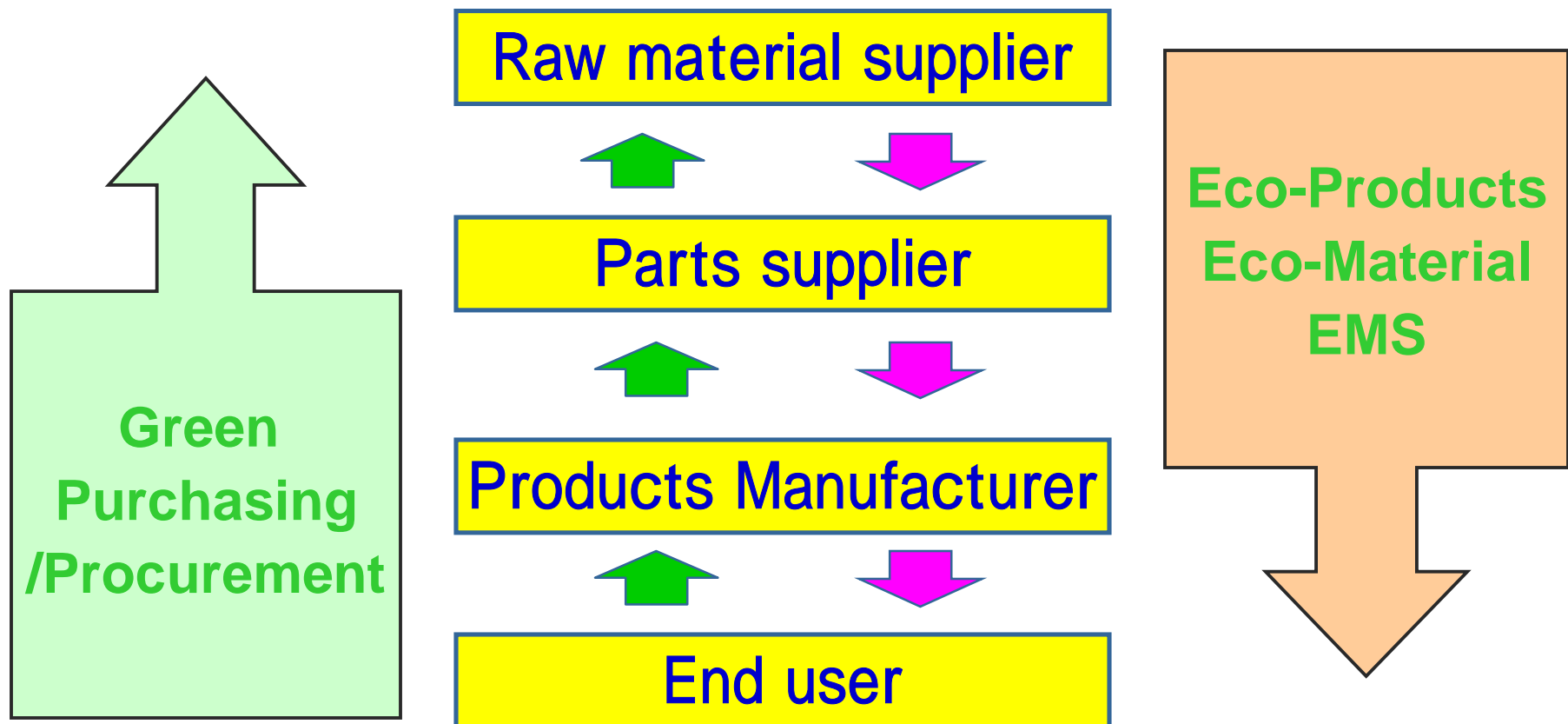
*Green Purchasing encourage environmentally conscious
Management and eco-product development through the market*

Green purchasing promotes Sustainable Businesses

- Sales of “green” products increase.
- Environmentally conscious companies are supported by the market, and grow up.
 - In the future only “green” companies will be able to survive.
- Development of “green” products and environmentally conscious management are accelerated.
- Environmental protection can be consistent with economy and businesses.

➡ We can realize the sustainable development.

Greening Supply Chain by Green Purchasing





Green Purchasing Policies of Public Organizations

Purchasing Power of Public Organizations

- **Europe:**
 - Public purchasing: 1 trillion EURO/year
 - Over 14% of GDP
- **US:**
 - Federal government spends \$500 billion/year
 - State/local governments spends \$400 billion/year
- **Japan:**
 - National government spending: ¥14 trillion/year
 - Local governments spending: ¥44 trillion/year
 - Totally 17.6% of GDP
- **UN:** \$3 billion/year—value of business opportunities linked to UN direct/indirect spending: \$30 billion



Environmental Effect of Green Purchasing RELIEF Project by ICLEI Europe

**Project funded by EC to identify environmental relief
potential of green purchasing in Europe**

Desktop Computer

- Over 2.8 million units purchased by public authorities
- 830,000 tones of CO₂–equiv. could be reduced.
 - 982,000 global person equivalents

Electricity

- 61,350,363 tones of CO₂–equiv. could be reduced.
 - One quarter of European Kyoto commitments

Sanitary Devices

- 190,407,539 l of water consumption could be reduced.

Buses, Food



Purpose of Green Purchasing

- Reduce environmental impact
- Enlarge eco-products market
- Green supply chain

*Simultaneous pursuit of
Economy and Environment !*



EcoProcura 2006 and The 2nd International Green Purchasing Conference in Barcelona



20-22 September 2006
Barcelona, Spain
360 participants from 53 countries



EcoProcura 2006 and The 2nd International Green Purchasing Conference in Barcelona





EcoProcura 2006 and The 2nd International Green Purchasing Conference in Barcelona



Green Purchasing in Japan





History of Green Purchasing in Japan

- In 1980's, single-criteria approach such as buying recycled paper, low-emission vehicle started.
- In 1987, Eco-Mark program was launched.
- In 1994, Shiga prefectural government was the first to formulate comprehensive guidelines on green purchasing.
- In 1996, GPN was established, and nation-wide movement had begun.
- In 2000, Green Purchasing Law was enacted.





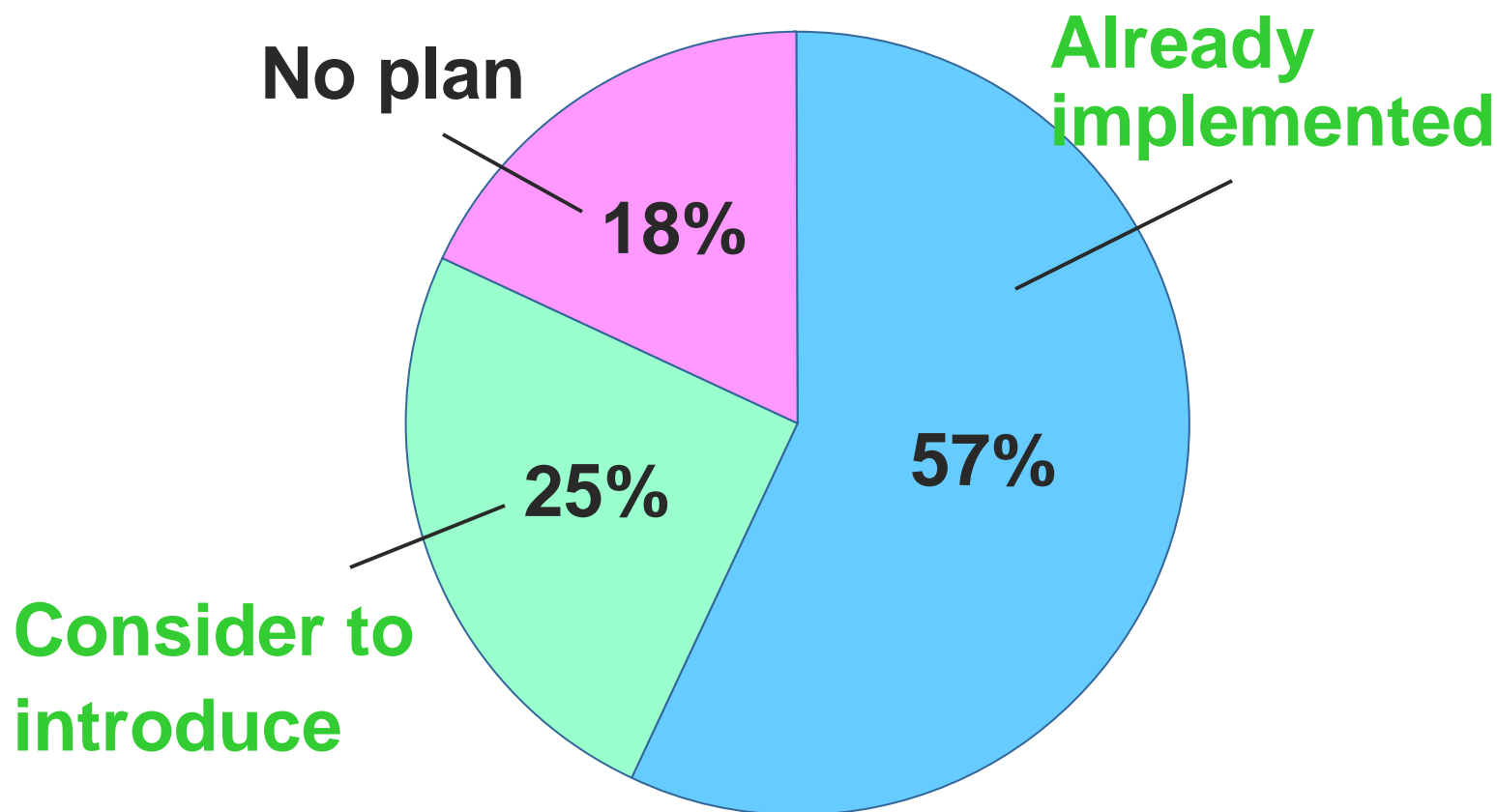
Green Purchasing in Public Sectors

- **All** the central government ministries practice green purchasing
- **100%** the 47 prefectural governments and 12 designated cities are engaged in green purchasing
- **68%** of 700 cities systematically implement green purchasing
- Particularly advanced areas : papers, office supplies, office furniture, OA & IT equipments, motorcars, uniforms, and electric appliances

Survey by MoE Japan in 2005



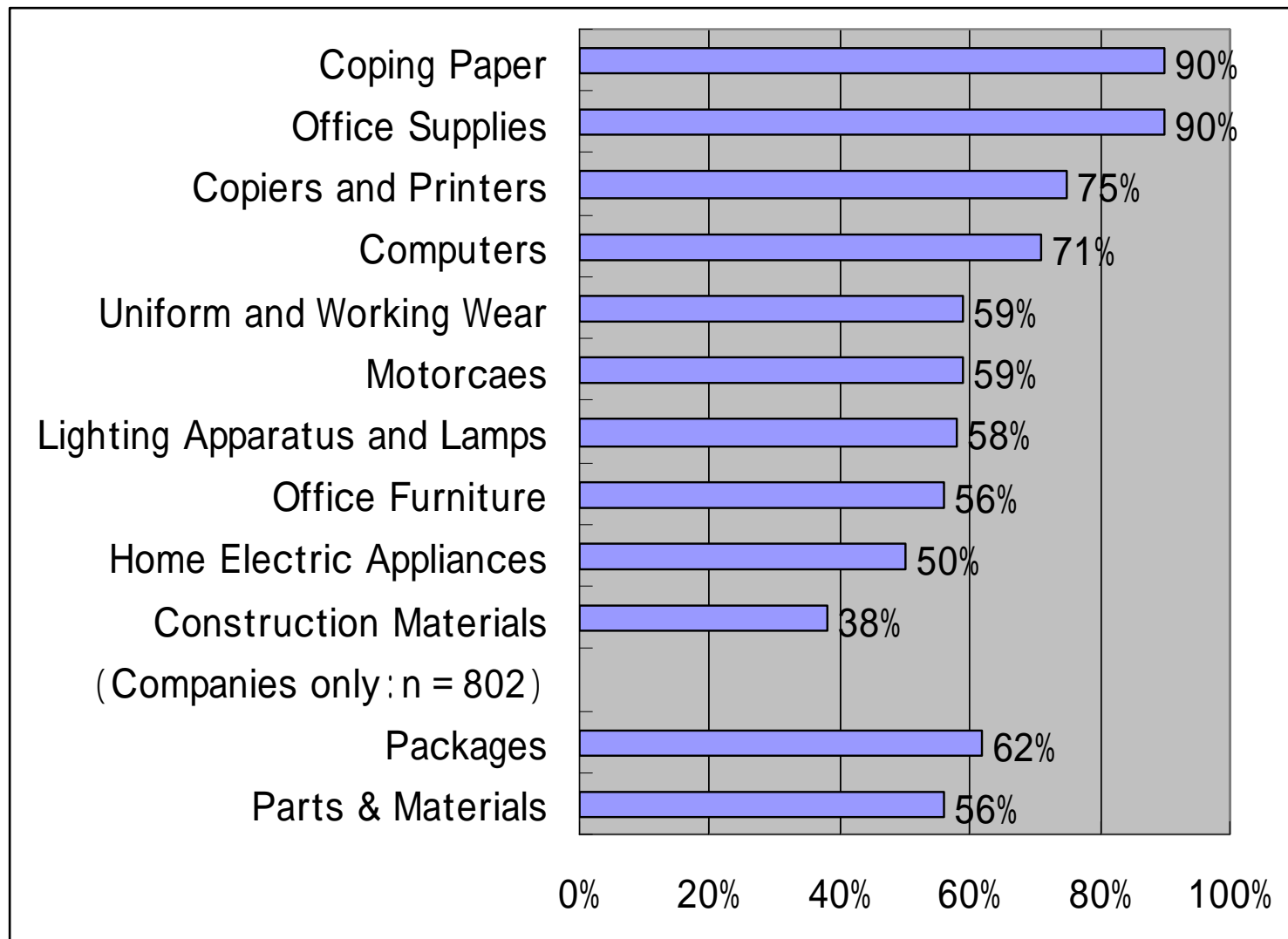
Green Purchasing in Business Sector



2,524 respondents (large sized companies)

Survey by MoE Japan in 2005

Products Areas where Japanese Institutional Purchasers practices Green Purchasing



Findings from survey by GPN in 2002



Three Key Actors of Green Purchasing Activities in Japan

- **Green Purchasing Network (GPN)**

- Founded in 1996
- 2,800 members (2,200 companies, 300 governments, 300 NGOs)
- 15 Purchasing Guidelines, Product DB(13,000 products registered), Hotel DB, Award, Training/Seminar, etc.



- **Government - Green Purchasing Law**

- Action Plan for Greening Government Operations (1994)
- Green Purchasing Law enacted in 2000
- All the national institutions must draw up annual purchasing policy, implement, and report results.
- 201 items are designated with criteria



- **Eco Mark Program**

- Since 1989 by Japan Environment Association (JEA)
- 5,000 certified products within 45 categories



Legal Framework concerning the Environment and the Economy

Fundamental Law for Establishing a Sound Material-Cycle Society

Waste Management and Public Leaning Law

Law for the Promotion of Effective Utilization of Resources

Container and Packaging Recycling Law

Home Appliance Recycling Law

End-of-Life Vehicle Recycling Law

Food Waste Recycling Law

Construction Material Recycling Law

Law on Promoting Green Purchasing



Law on Promoting Green Purchasing

Green Purchasing Law

Action Plan for Greening Government Operations (1994)

- **Encourage** all national administrations to buy greener products



Green Purchasing Law (2000)

- Enacted as one of six laws for establishing a recycling-based society
- **Oblige** all the national ministries/agencies to draw up green procurement policy annually, to practice it, and to report the result to Environmental Minister.
- **Oblige** local authorities to endeavor to draw up annual policy and to practice it.



Green Purchasing Network (GPN)

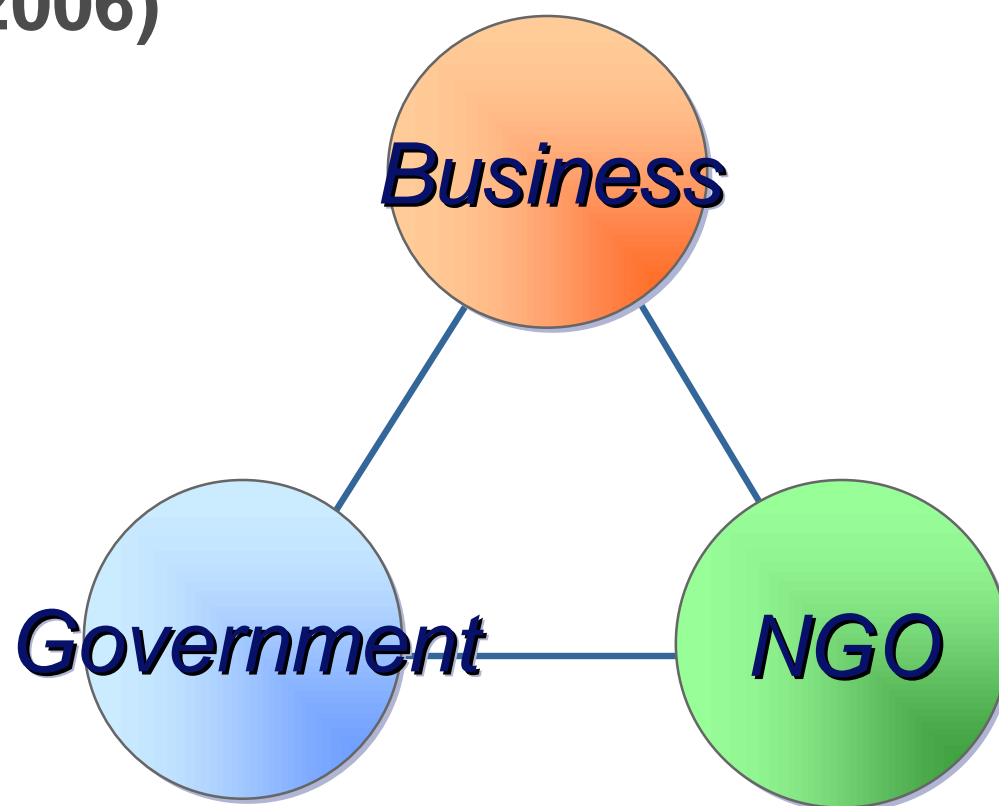
- Founded in February 1996 to promote green purchasing in Japan by the initiative of the Environment Agency
- The mission of GPN
 - to promote the concept and practices of green purchasing
 - to provide guidelines and information necessary for practicing green purchasing.
- 2,800 members
 - 2,200 companies, 300 governments, 300 NGOs
- **GPN has taken a leading role in promoting green purchasing in Japan.**





More About GPN

- Independent non-profit organization
- **2,860 members** (Jan. 2006)
 - 2,261 enterprises
 - 317 governments
 - 282 NGOs, NPOs
- Executive Committee
 - 45 members
from each sector



***One of the largest
environmental organizations in Japan***

Celebration of 10th Anniversary of GPN



Feb. 2006





Celebration of 10th Anniversary of GPN





Activities of GPN

- Conferences, Seminars, Exhibitions
- “Green Purchasing Award”
- Training Course
- Case study on success stories
- Newsletter, Website
- Promotion pamphlet, posters
- Regional Networks
- Annual Surveys
- Principles of Green Purchasing
- **Purchasing Guidelines**
- **Products Database**
- **Hotel Database**
- **Information Plaza**





Green Purchasing Guidelines

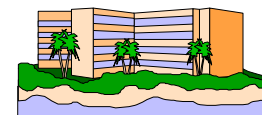
Products

- Printing and Copying Paper
- Copiers, Printers, Facsimiles
- Personal Computers
- Stationery and Office Supplies
- Office Furniture
- Motor Vehicles
- Refrigerators
- Washing Machines
- TV Sets
- Air Conditioners
- Toilet and Tissue Paper
- Lighting Equipment
- Uniforms and Work Wear
- Toilet Facilities



Services

- Offset Printing Service
- Hotels and Inns



Under Making Process

- Foods
- Clothing



Under Preparation

- Restaurants

GPN Products and Service Database

GPN Database

13 products area where purchasing guidelines exist

Green Purchasing Information Plaza

Various products and services not listed in GPN database

Eco-Challenge Hotel Database

グリーン購入ネットワーク - Microsoft Internet Explorer

ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

アドレス(D) http://www.gpn.jp/

戻る 進む ホーム 中止 検索 履歴 お気に入り 更新 印刷 ページ翻訳 編集

グリーン購入ネットワーク
Green Purchasing Network
環境への負荷が少ない製品やサービスの優先的購入を進める全国ネットワーク

2004.7.1 現在GPN会員数2,803団体(企業2,184 行政356 民間団体263)

GPN データベース GO	GPNガイドラインの対象となる、16分野1万を超える製品の環境情報をまとめた総合データベース
グリーン購入情報プラザ GO	GPNガイドラインでは対象としていない製品・サービス全般の環境情報を紹介しています。
ECO CHALLENGE エコチャレンジホテル	エコチャレンジホテルの掲載が200施設を突破！
グリーン購入法 特定調達物品 情報提供システム	グリーン購入法の特定調達物品に関する製品の情報サイト
グリーン購入 取り組み事例 データベース	取り組み情報源や特徴などをまとめた情報サイト

What's New

6/30 「グリーン購入」...

6/28 情報...

Green Purchasing Law Database

About GPN Eco-Products Database

Product Environmental Performance Database

- More than **13,000 products** registered
- About 600 companies participating
- **Comparable data** unified by information format
- 300,000 page-views monthly

Product Categories

- Printing and Copying Paper
- Copiers, Printers, Facsimiles
- Personal Computers
- Stationery and Office Supplies
- Office Furniture
- Motor Vehicles
- Refrigerators
- Washing Machines
- TV Sets
- Air Conditioners
- Toilet and Tissue Paper
- Lighting Equipment
- Uniforms and Work Wear
- Toilet Facilities

GPNデータベース - Microsoft Internet Explorer

アドレス http://gpn-db.mediapress-net.com/gpn-db/category/16/result_02.hgh

グリーン購入のための
GPNデータベース
Green Purchasing Network Database System

商品登録について 購入ガイドラインについて 問合せ

検索結果 6 件

チェックした商品だけを再表示機能に関するヘルプ

項目説明 購入ガイドライン PDFファイルで表示

画像もしくは機種名をクリックすると詳細情報が表示されます。

絞り込み	画像	機種名	事業者名	定格内 容積 (L)	グリーン 購入 法 準 拠 合 格 品	年間 消費 電力 量 (kWh/年)	二 酸 化 炭 素 排 出 量 (kg CO2/年)	省 エ ネ リ 率 特 記 事 項	冷媒 物 質 名	オ ゾ ン 層 破 壊 影 響	地 球 温 室 化 影 響	断熱材発泡剤 物 質 名	オ ゾ ン 層 破 壊 影 響	地 球 温 室 化 影 響	再生プラスチック材 使用の有無	使用 箇 所	他 の 環 境 配 慮 特 記 事 項	外形寸法 (mm) 幅 × 奥行き × 高さ	定格 電力 (W)	製 品 重 量 (kg)	希 望 小 売 価 格 (円)
<input checked="" type="checkbox"/>		NR-C379M.C379MS	松下電器産業	365	○	490	185.2	有	R600a	なし	なし	シクロペンタン	なし	なし	y	冷蔵庫の底面部放熱器取付部品	あり	590 × 630 × 1798	110	67	オープン
<input checked="" type="checkbox"/>		SR-261K	三洋電機	357	○	540	204.1	有	R600a	なし	なし	シクロペンタン	なし	なし	n	—	あり	600 × 630 × 1720	95	71	オープン
<input checked="" type="checkbox"/>		SJ-PV07K	シャープ	365	○	570	215.5	有	R600a	なし	なし	シクロペンタン	なし	なし	y	ギョウシュウキカパー 冷蔵庫と冷凍室の仕切り部	あり	600 × 627 × 1798	105/105	72	オープン
<input checked="" type="checkbox"/>		SLIM065 R-S37MMV (SS) クリアステンレス	日立アプライアンス	365	○	590	223	有	R600a	なし	なし	シクロペンタン	なし	なし	y	ドアスイッチケース等	あり	590 × 615 × 1,798	122/122	72	オープン
<input checked="" type="checkbox"/>		三菱冷蔵庫 MR-C138L	三菱電機	384	○	600	226.8	有	R600a	なし	なし	シクロペンタン	なし	なし	y	キャスター、蓋板ケース、蒸気扉、奥開け	あり	600 × 699 × 1770	128/143	75	オープン

表示ページ: 1

GP Law Conformity








Energy Satr

Printing Speed

Stand-by Mode(W)

Company

Brand Name

絞込再表示	画像	製品名・型式	事業者名	モノクロ/カラー	コピー速度 (枚/分)	印刷速度 (枚/分)	電送時間	グリーン購入法判断基準適合	国際エネルギースター	低電力モード消費電力	両面印刷機能	複数ページ印刷機能	再使用部品の使用の有無	再生ブラ使用の有無	再生ブラ使用状況	使用済みカートリッジ	記録被覆類への塩ビの使用	他の環境配慮特記事項	標準価格 (円)	
<input checked="" type="checkbox"/>		HL-2040	ブラザー工業	M	-	20	-	○	y2	5	n	y	n	有	y	有	○	IV	有	42000
<input checked="" type="checkbox"/>		PagePro 1350W	コニカミノルタビジネステクノロジーズ	M	-	20	-	○	y2	7	n	y	n	有	y	有	○	IV	有	41790
<input checked="" type="checkbox"/>		BEAMSTAR-M320L(PC-P L2450)	日立製作所	M	-	20	-	○	y2	16	n	y	n	有	y	有	◎	IV	有	148000
<input checked="" type="checkbox"/>		DocuPrint C7000 (PS-PRKL-9260)	富士通	M	-	21	-	○	y2	16	n	y	y	有	y	有	○	IV	有	99800
<input checked="" type="checkbox"/>		HP Color LaserJet 4650dn	日本ビクター パナソニック	C	-	21	-	○	y	26	y	y	y	有	n	有	◎	IV	有	831400
<input checked="" type="checkbox"/>		MultiWriter 2300 (PR-L2300)	NEC	M	-	20	-	○	y	45	y	y	y	有	n	有	◎	IV	有	44900
<input checked="" type="checkbox"/>		DocuWide 6050																		

me

ed Copying

Use of Reused Parts

Use of Recycled Plastics

Toner Cartridge Recycling

PVC

Column of Lead, Mercury, Cadmium, Hexavalent Chromium, Polychlorinated Biphenyls, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers, and Polyvinyl Chloride

PVC Use

Toner Cartridge Recycling

Use of Recycled Plastics

Use of Reused Parts

Two-sided Copying

Column of Lead, Mercury, Cadmium, Hexavalent Chromium Compounds, PBB, and PBDE will be added

Useful Functions of GPN-Database

Screen out products by user-set criteria

Arrange listings in order of user-selected criterion

Restrict displayed data to info items selected by user

Make a new table of user-selected products

Search by keyword

The screenshot displays the GPN Database System interface. At the top, there's a navigation bar with links like 'トップページ' and '冷蔵庫'. Below this, a sidebar lists product categories such as '印刷・情報用紙', 'コピー機', and 'プリンタ・ファクシミリ'. The main content area shows a table of products with columns for product name, price, and other attributes. A search bar is visible on the right, and a table of selected products is shown at the bottom right.

製品名・型式	価格	単位	在庫	環境	その他	評価	備考
13M4035 京セラミタ	40	40	S-03	O	55	y2	80
DocuCentre 401	40	-	-	O	120	y2	70
IR4000 キヤノン	41	-	-	O	176	n	115
D451 コニカミノルタビジネステクノロジー	45	45	S-03	O	62	y2	16
PRBA40E465 東芝デック	45	-	-	O	127	y2	38
Image R 4570RC リコー	45	45	-	O	170	y2	117.7
リブルAR-5507 シャープ							
DocuCentre5073MD 富士通							

Detailed Data of Registered Products

詳細情報 - Microsoft Internet Explorer

詳細情報

ガソリン乗用車

フィット(1.3A,1.3Y)

事業者名: ホンダ

詳細情報 - Microsoft Internet Explorer

詳細情報

冷凍冷蔵庫/451~500L

NR-F501A

詳細情報 - Microsoft Internet Explorer

詳細情報

透明ポケット式ファイル

クリアーブック(エコロジー固定式) [ラ-E560B 他]

事業者名: コクヨ

環境情報

エンジン
駆動方式
変速機
グリーン
10・15モ
省エネ法
CO₂排出
排出ガス
燃費・排
冷媒の種
冷媒使用
使用量

詳細情報 - Microsoft Internet Explorer

詳細情報

複合機(大判複写機除く)

DocuCentre 5070C MB

事業者名: 東芝

詳細情報 - Microsoft Internet Explorer

詳細情報

ノート型

VersaPro VY80M/BW-R

事業者名: NEC

環境情報

対象ユーザー
プロセッサ
ハードディスク(G
メモリ販売時搭載
メモリ販売時最大
モニター種類ノ
グリーン購入法
省エネ基準準
エネルギー消費
エネルギー消費
国際エネルギー
本体

詳細情報 - Microsoft Internet Explorer

詳細情報

制服

フィールドクルー-SF2450R・1R

事業者名: チクマ

環境情報

グリーン購
再生材の
部品
製品
【参考
とじ具の再
製品

詳細情報 - Microsoft Internet Explorer

詳細情報

回転椅子

エルゴノミックメッシュチェア Contessa シリーズ

事業者名: 岡村製作所

環境情報

代表品番

主な使用素材

張り地

クッション

背・座

脚

CM32SB FBF9

布(PET)

ウレタン

PA

PA



The Eco Mark Program



- ISO Type I Environmental Label
- Established in 1989
- Voluntary program
- Operated by Japan Environment Association (JEA)




Product Categories: 46

Licensees:1,656

Products:4,862 (As of June 2006)



Product Related Information Used by Green Institutional Purchasers

Eco Mark (ISO Type Label)		88%
GPN Guidelines/Database		48%
Symbols from Third parties		43%
Criteria of Green Purchasing Law		33%
Self Declaration Label	 	23%
ISO Type Label (e.g Eco-Leaf)		7%

Source: GPN “Green Purchasing Questionnaire Survey”(2003)



Various Environmental Labellings

Considering whole life cycle

Focusing specific aspect(s)

S
Y
M
B
O
L



D
A
T
A

GPN Data Base



Type Label

JAMA Information on Motorcars

JEMA Information on Home Appliances

Energy Saving Catalog

Low Emission Vehicle Guidebook



Incentives for Green Purchasing

National scheme

- Tax reduction for low emission and fuel efficient vehicles
- Subsidy for high efficient boiler

Local scheme

- Subsidy for solar system and composter

Commercial Bank

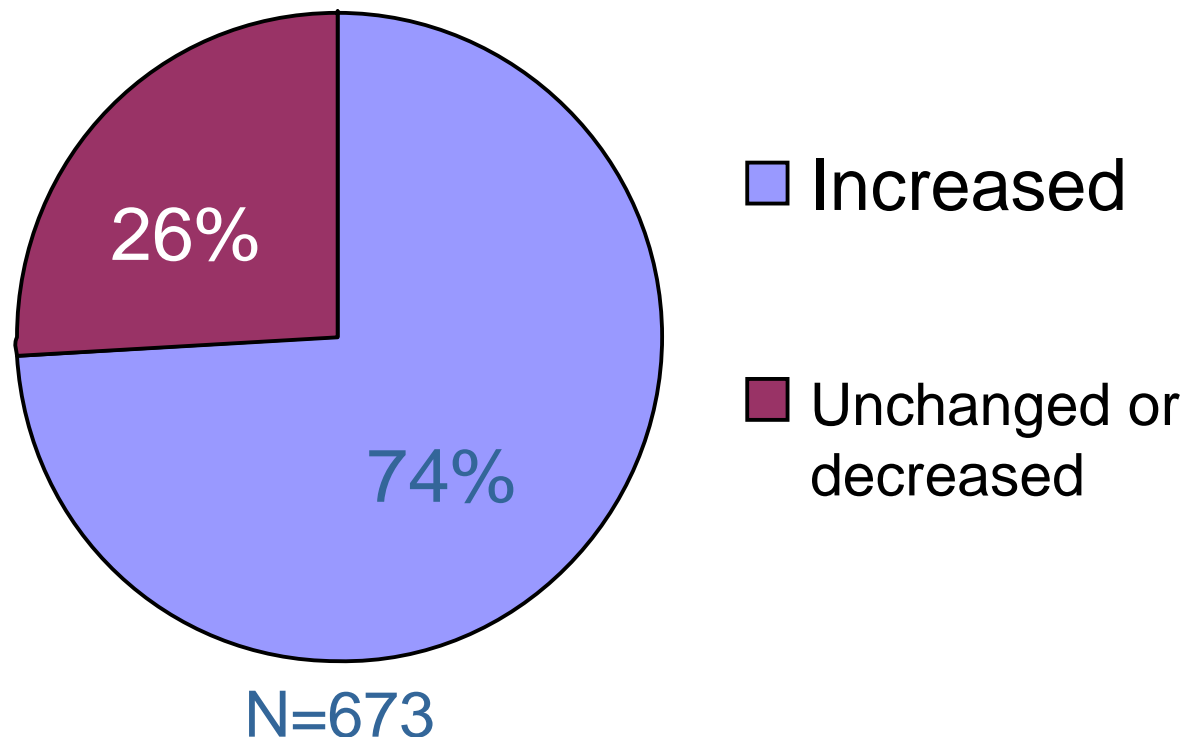
- Low interest financing for energy efficient house, low emission vehicles, and solar system

Market Impact of Green Purchasing

Market Impact of Green Purchasing

Findings from survey by GPN in 2001

Sales of Green Products





Effect of Green Purchasing

GPN Annual Suppliers Survey, Japan

2001 Survey

- 74% of 673 supplier companies responded “**sales amounts of green products have increased** in the past couple of years”.
- 75% have **increased green products brand**.

2002 Survey

- 74% of 802 suppliers responded “**customers’ interest in green products have increased**”.

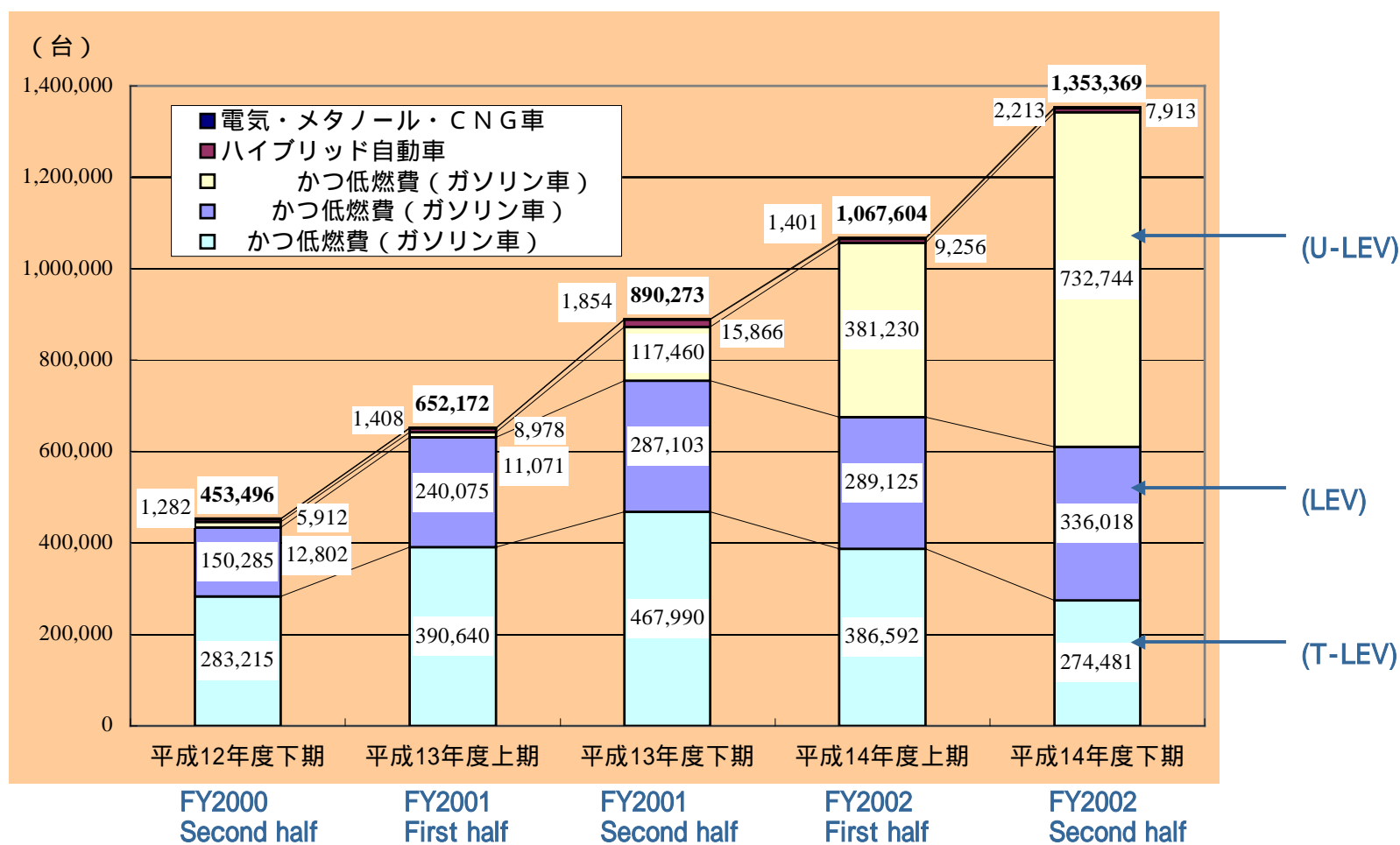
2003 Survey

- 58% of 722 suppliers responded “sales amounts of green products have increased in the past year”.
- Domestic market size of green products is roughly estimated as 50 trillion yen.

Effect of Green Purchasing

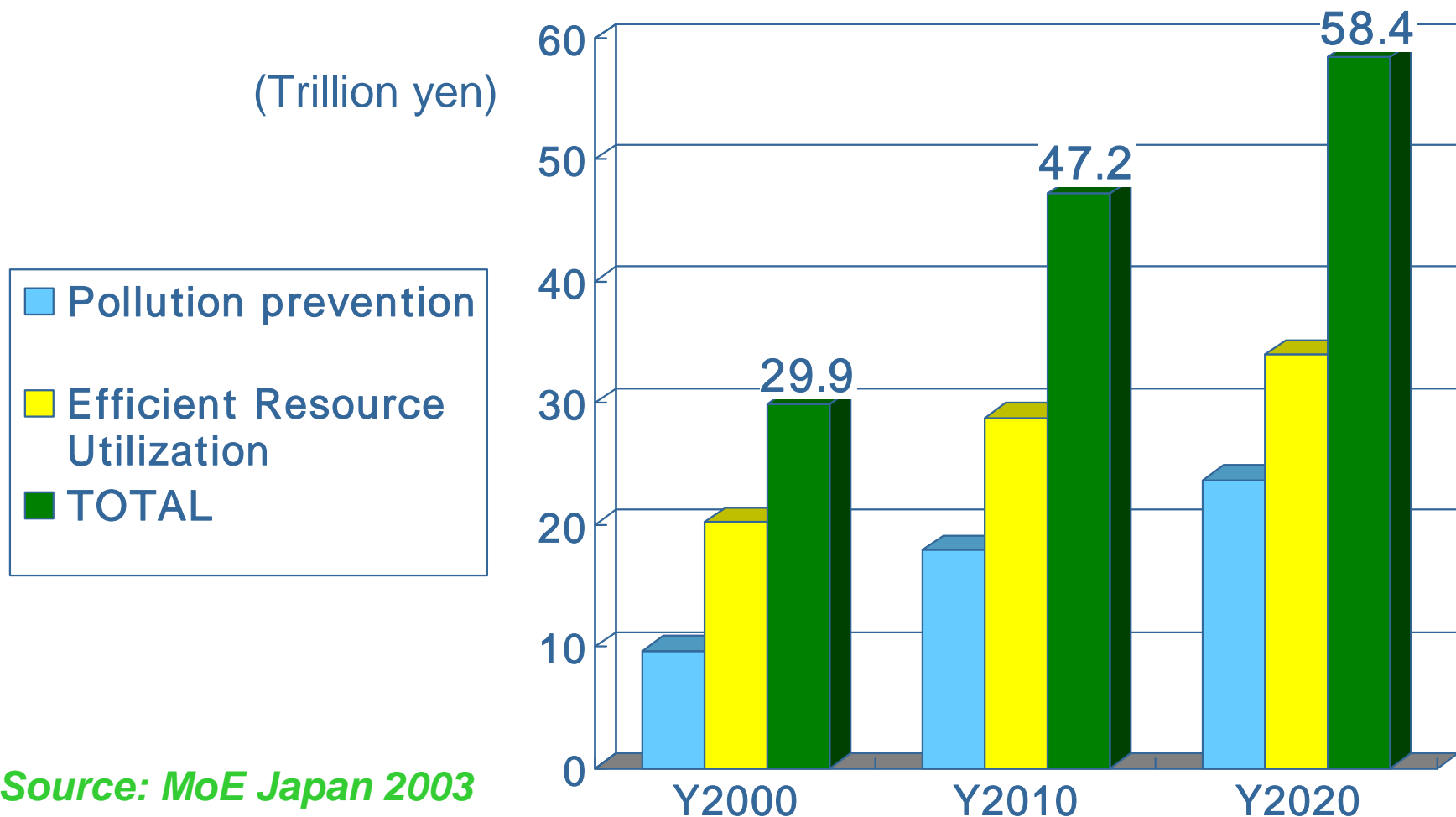
Market impact – Surveyed by MoE, Japan

Sales of lower emission and fuel efficient vehicles rapidly increased after enforcement of Green Purchasing Law



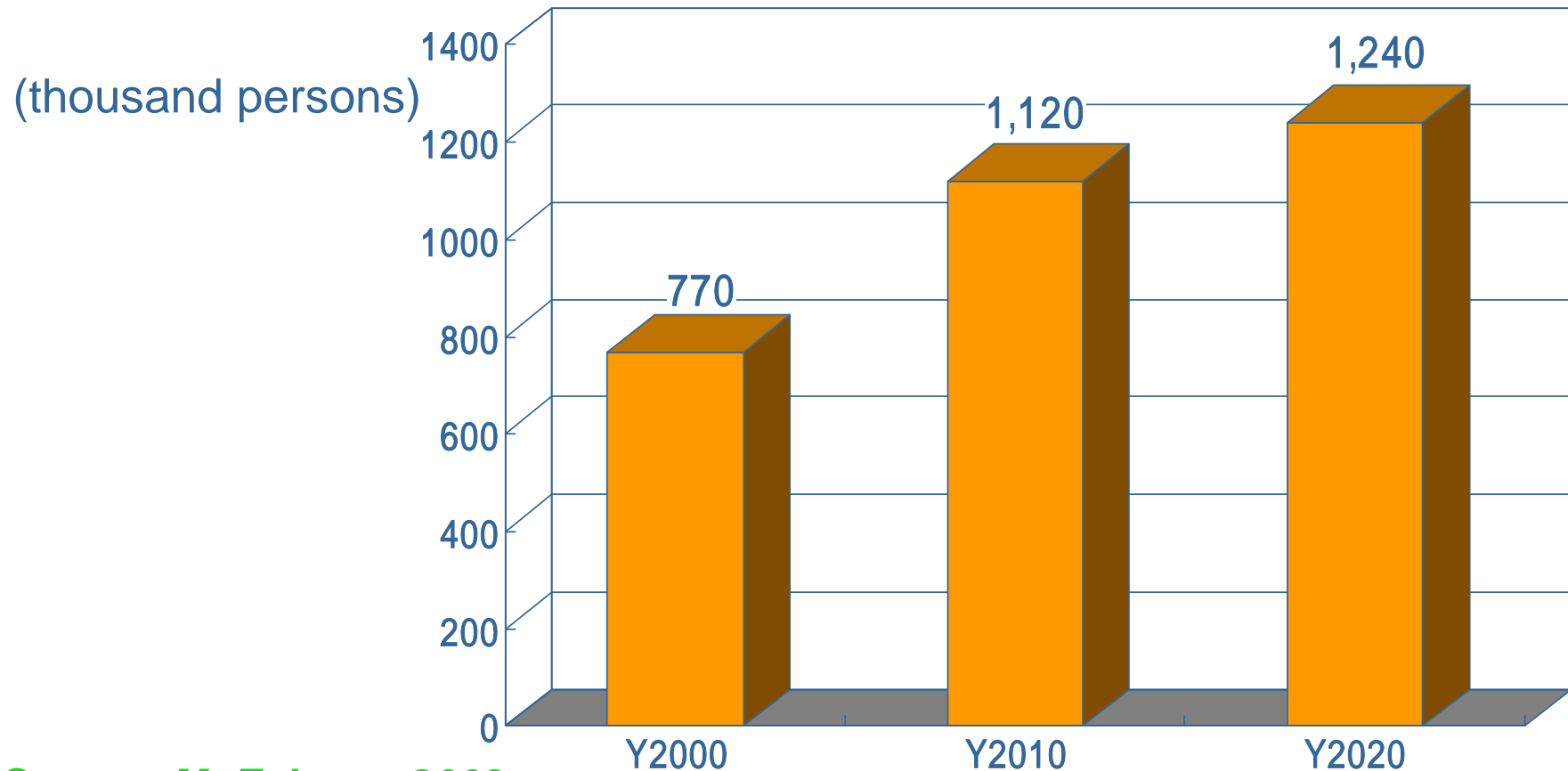
Market Size of Environmental Business of Japan

Government estimates 47 trillion yen (4,200 billion US\$) in 2010.



Employment Size of Environmental Business of Japan

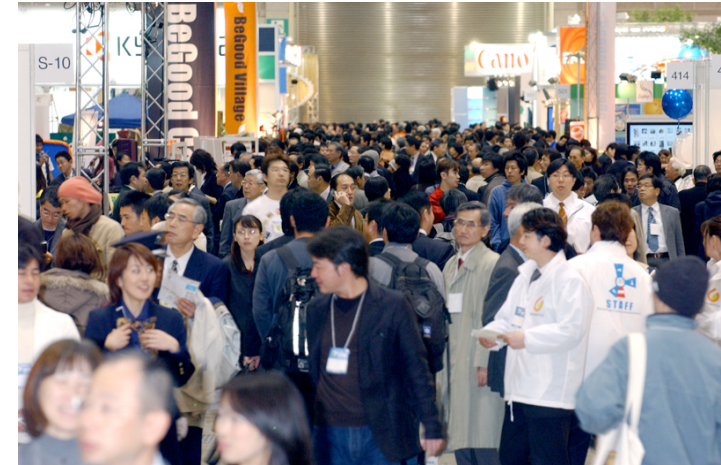
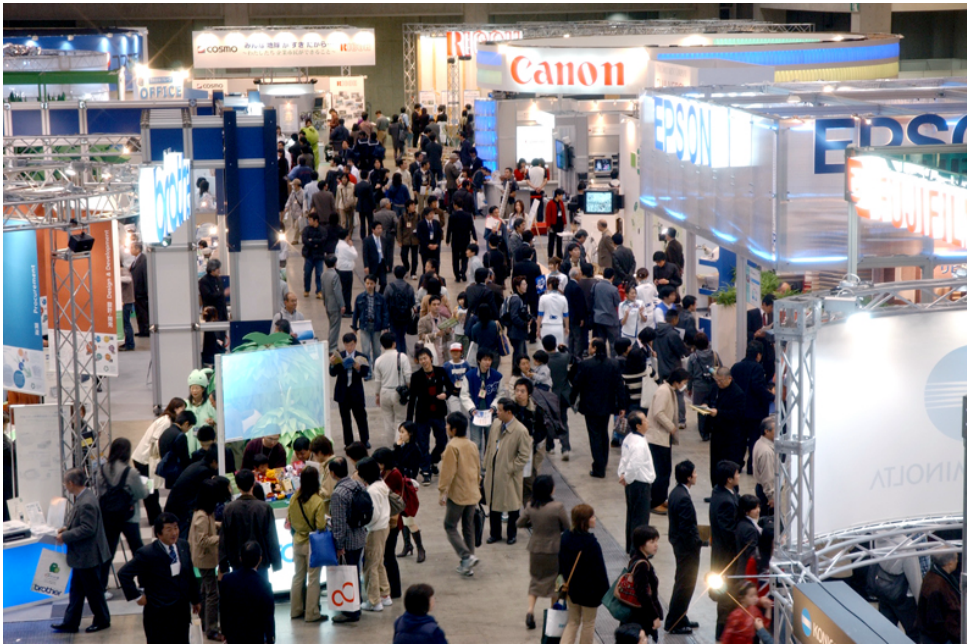
More than million employment within several years



Source: MoE Japan 2003



Eco-Products Exhibition in Tokyo



***More than 400 companies,
Exceeds 140,000 visitors***



Barriers and Benefits of Green Purchasing



Barriers of Green Purchasing and How to overcome them

- **Cost**

- Consideration of Life Cycle Cost(LCC)
 - Lower the price of Eco-products through mega implementation by governments and enterprises

- **Quality**

- Stimulate quality improvement by competition

- **Availability of products and information**

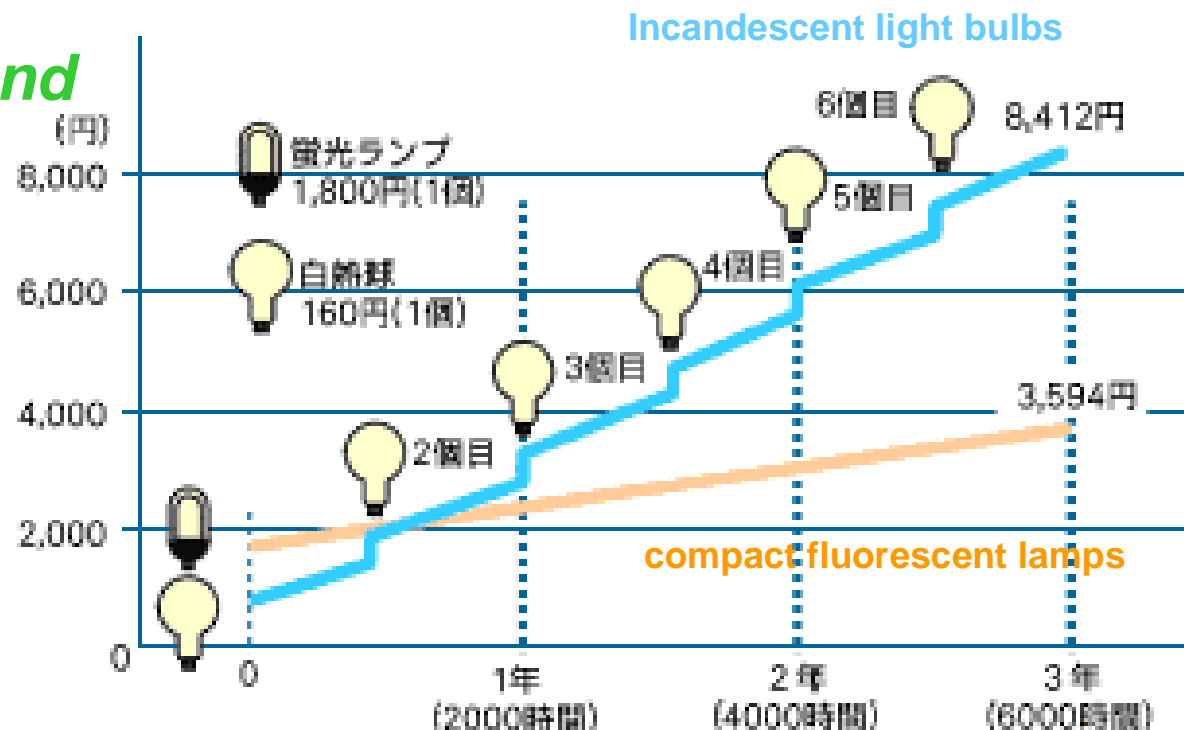
- Eco-products Database
 - Eco-labelling
 - Cooperation with suppliers

Life Cycle Cost (LCC) Consideration

When you change incandescent light bulbs to compact fluorescent lamps

- Energy consumption/electricity bill : 1/4 - 1/5
- Durability : 6 times

*In the long run,
you can save money and
save the environment
at the same time!*





Barriers of Green Purchasing and How to overcome them

- **Low awareness**
 - Top-down approach
 - Compulsory obligation by legislation
- **Lack of knowledge**
 - Training and education



Benefits for Institutional Purchasers

- Enterprises and governments

By introducing green purchasing,

- Environmental impact generated by the organization can be reduced.
 - Energy saving(=CO2 reduction) by buying low-energy consumption products
 - Waste reduction by buying durable goods
- Cost can also be reduced when take account of **Life Cycle Cost (LCC)** - **Save Money!**-
 - Electricity charge, Water rate
 - Maintenance cost, Replacement cost, Waste disposal cost

And,.....



Benefits for Institutional Purchasers

- Enterprises and governments

By introducing green purchasing,

- **Environmental awareness** of the employees can be raised and enhanced.
 - All the employees can be users of green products, and get a chance to consider their own responsibility for the environment
 - That gives positive effect on product development, sales promotion of green products, recycling program, energy saving and so on.
- The positive stance toward the environment can be visibly **appealed to the public.**
 - That contribute to their image-up showing themselves as environmentally responsible corporations – **CSR.**

Conclusions



Key Factors for success in Japan -1

[First stage (1995-2000)]

- Pioneering activities by lots of environmentally conscious major companies and local governments, which stimulated competitors and neighbors.
- Green Purchasing Network (GPN) has succeeded to involve wide range of businesses, public and NGO sectors.
- GPN and its members succeeded to make a nation-wide big social trend.
- The Ministry of the Environment (MoE) backed up the voluntary movements and GPN.
- Success stories were introduced by the award and seminars by MoE and GPN.
- Businesses made considerable efforts to develop eco-products.



Key Factors for success in Japan -2

- It became much easier to get product environmental information from GPN Data Base, Eco-mark, suppliers catalog, etc.
- The movement was concurrent with popular trend of getting certificate of ISO14001.

[Second stage (2000-)]

- The mandatory Green Purchasing Law dramatically disseminated the activities among governmental sectors.
- Companies which products designated by the law worked hard to meet the criteria.
- EU RoHS directive accelerated corporate green procurement activities through supply chain.



Conclusions

- **Supplying** eco-products and green purchasing are necessary for greening the market.
- **Governments** and businesses already started green purchasing across the world and had made reasonable successes.(Japan, USA, Europe, Korea, etc.)
- **“Cost”** problem can be overcome.
- **To supply** information of Eco-products is indispensable for practice of green purchasing.
- **Cross-sector** organization like GPN is effective to promote green purchasing. (Japan, Korea, China, Malaysia, Thailand)

Start green purchasing from now !



*Thank you for your kind
attention.*

<http://www.gpn.jp>