

# Environmental Policy of Private Company

June 19, 2007  
NEC  
Env. Mng. Division  
Ryosuke UGO

## Structure of the Lecture !

- June 19 Information input for Environmental management activities – NEC’s activities
- June 26 Environmental Reporting
- July 10 Debating on the sustainability of private companies

## The Points of my Lecture !

1. What is “the private company” ?  
The answer is ???
2. What is “the Environmental Problems” ?  
The answer is ???
3. What is “the Management System” ?  
The answer is ???
4. What is  
“the sustainability” of the private company ?

NEC’s Environmental Strategy  
“Ecology through IT”  
~ NEC’s Environmental Vision 2010 ~

June 19, 2007  
NEC CSR Unit  
Env. Mng. Division

# Input information contents

1. Company Profile
2. NEC's Environment Vision
3. Environmental activities
  - (1) Eco-Products development
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  - (3) Eco-Solutions & Services
  - (4) Continuous reduction of environmental loading
4. Positive information disclosure
5. NEC's environmental policy
6. Report theme (1)

# Company Profile

**Company Name:** NEC Corporation  
**Address:** 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan  
**Established:** July 17, 1899  
**Chairman of the Board:** Hajime Sasaki  
**President:** Kaoru Yano  
**Capital:** ¥ 337.8 billion - As of Mar. 31, 2006 -  
**Consolidated Net Sales:** ¥4,824.9 billion  
 - Fiscal year ended Mar. 31, 2006 -  
**Operations of NEC Group:** IT Solutions Business  
 Network Solutions Business  
 Electron Devices Business  
**Employees:** NEC Corporation  
 23,528 - As of Mar. 31, 2006 -  
 NEC Corporation and Consolidated Subsidiaries  
 154,180 - As of Mar. 31, 2006 -  
**Consolidated Subsidiaries:** 356 ( 142 Domestic, 214 Overseas )  
 - As of Mar. 31, 2006 -



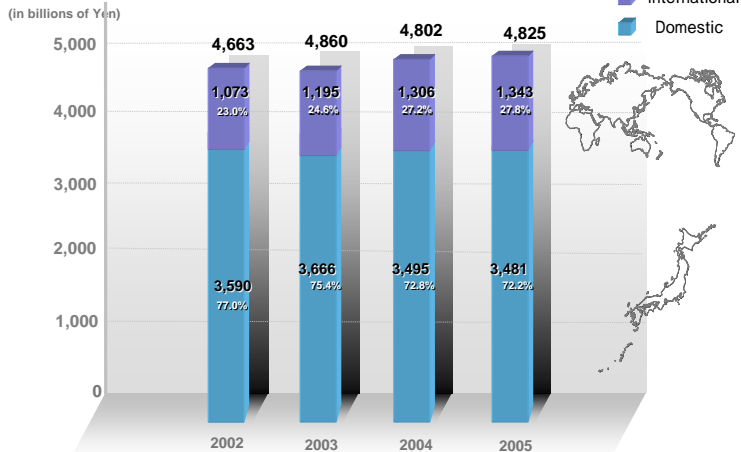
Hajime Sasaki



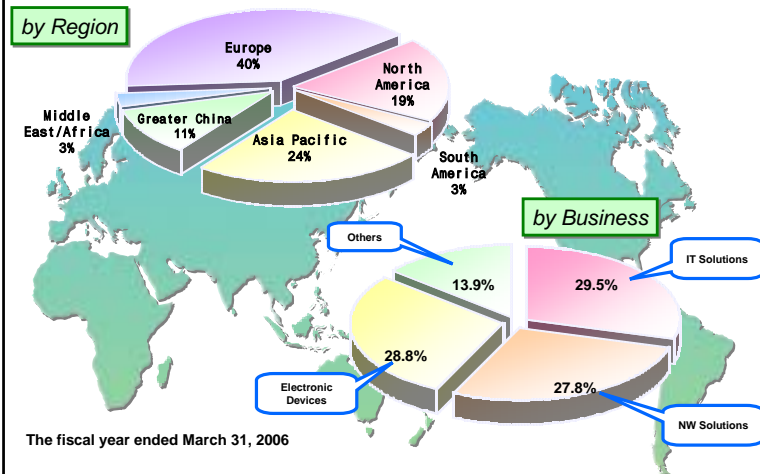
Kaoru Yano

# Net Sales

(NEC Corporation and Consolidated Subsidiaries)



# International Sales

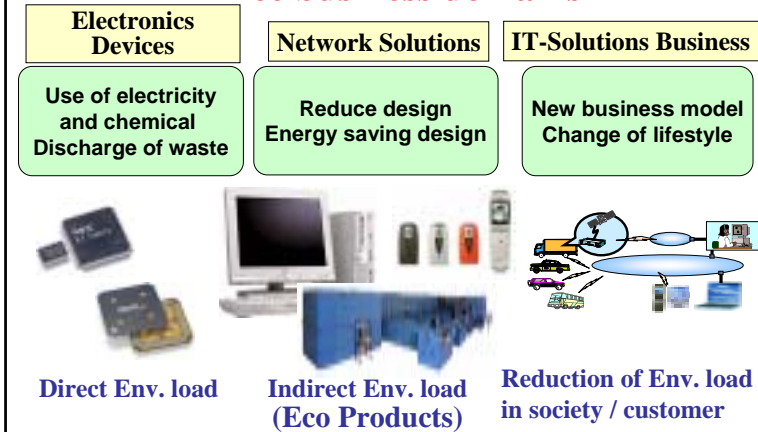


## Business Field and Main Products/Service



## NEC's Main Products and Environment

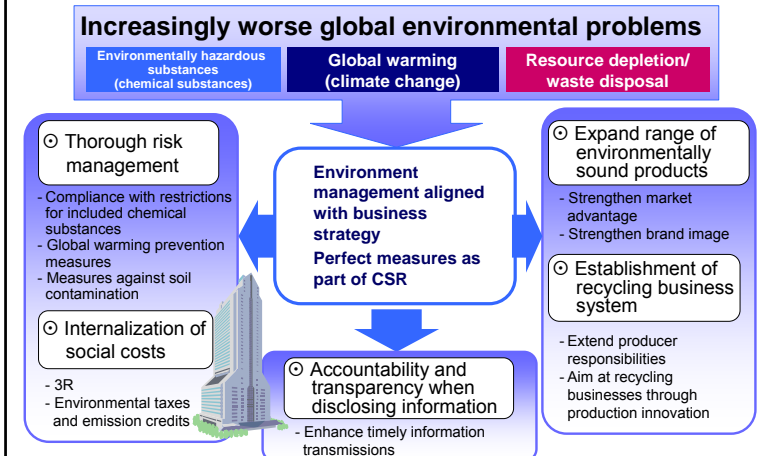
### Three business domains



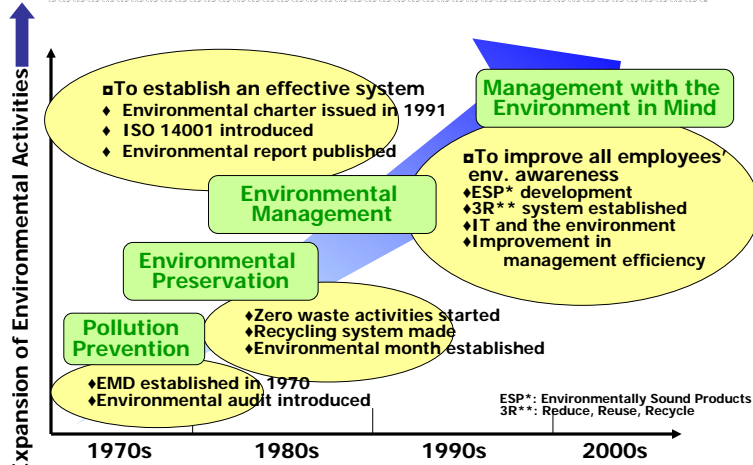
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6. Let's think about (1)

## Business Environmental Movement

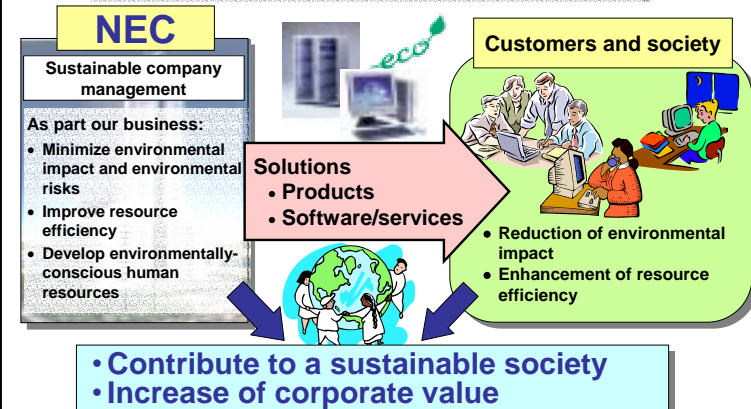


## Trend of NEC's Environment Management Activities

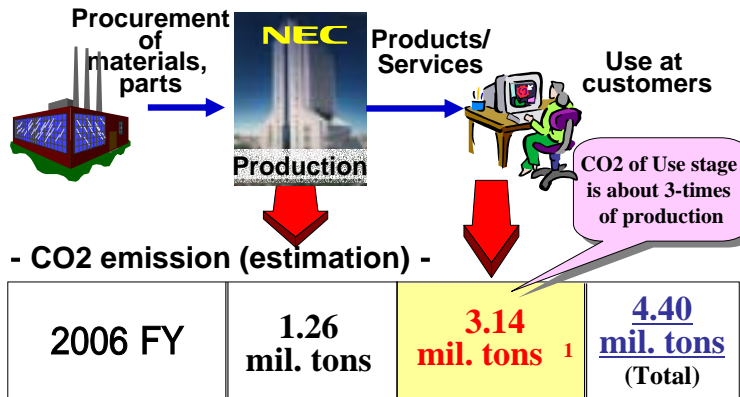


## Environment Management Envisioned by NEC

### Concept of NEC's Environment Management

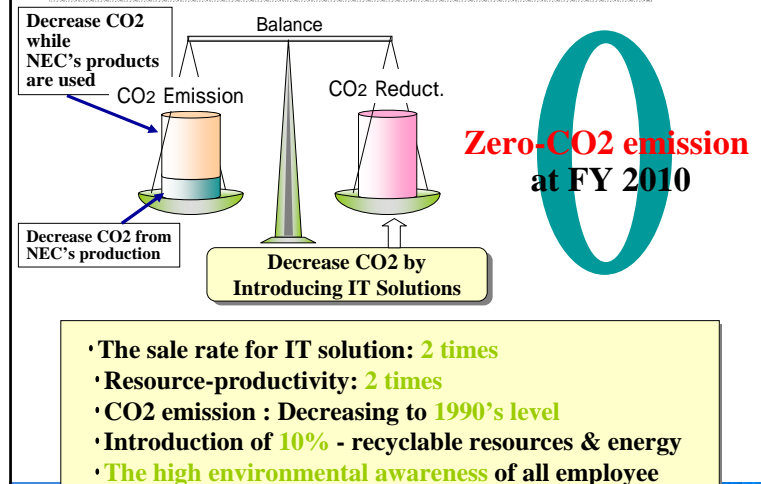


## Environmental Loading from NEC's Business activity



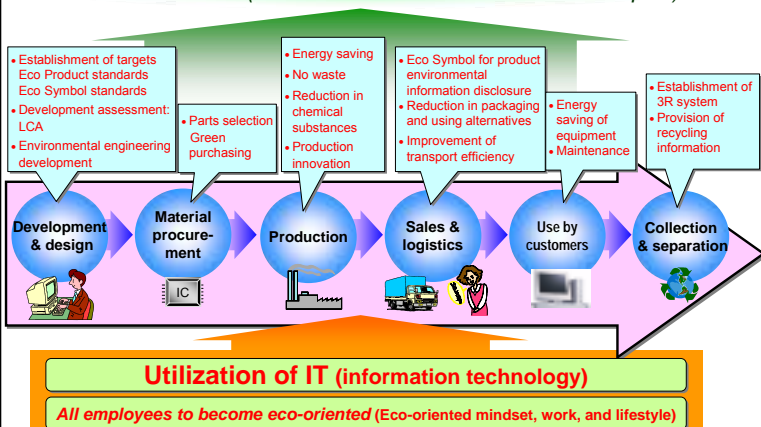
<sup>1</sup> Including about 0.23 mil. tons of logistics

## NEC's Environmental Vision 2010



## Environmental Awareness in All Business Processes

Waste reduction (reduction in costs and environmental impact)



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## NEC Eco Products Strategy

Performance

Quality

Cost

Design

+

**Ecology**

**Global warming prevention**

**CO2 reduction**

(energy reduction, ex. during product use, standby mode)

**Environmental consciousness**

**Control of Hazardous substances**

(Pb, 6<sup>th</sup> chromium, Hg, Cd, etc.)

**Resource recycling**

**Promotion of recycling**

(Reduce/Reuse/Recycle)

Consideration of the entire product life cycle incl. product design, production, shipping, use and scrapping

## Eco-Symbol System

~ Started in December 1998 ~

Promote the eco-product development  
Disclose eco information on products

- Requirement for the Eco Symbol -

**Meet NEC standards for Eco-Product : 24 items**

**Have environmentally sound advanced features**

**Disclose environmental information on products**



Eco-Product Standards (Extract)

- Determine the CO2 amount throughout a product's life cycle and make efforts to prevent global warming
- Use recycled paper for 70% or more of packaging cardboard and use recycled paper for manuals
- Ban the use of ozone-depleting substances for parts and materials
- Promote green procurement in selecting parts
- Design and produce products at sites certified by ISO14001

## NEC Eco Products Range

**3990 products models in 55 product categories**  
(as of the end of March 2006)

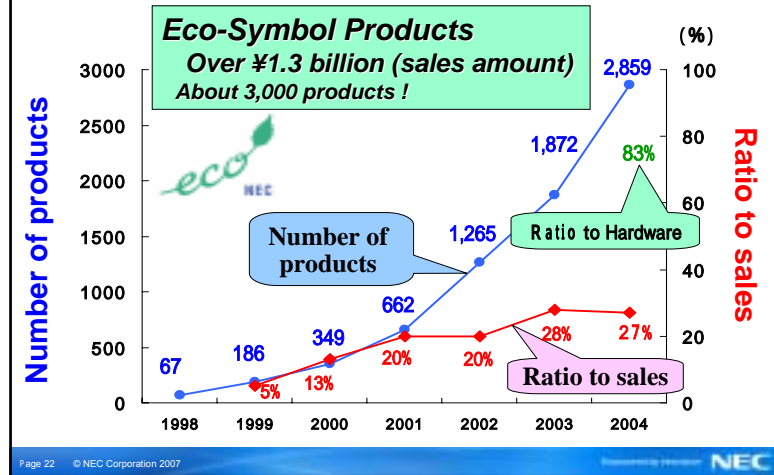
**Effective use of Resources**  
(Conservation of resources)

**Environmentally Sound**  
(Reduction of toxic substances)

**Preventing Global Warming**  
(promoting energy conservation)

Terminal adapter, CD-ROM Drive, Small-capacity voice server APEX, IC board (Halogen free), IC board (Lead free), Power MOSFET, PC Lavie, LCD module, iStorage, Personal router, High-performance computer

## Eco-Product Development



## Market-Leading Environmental Products and Branding as an Environmentally Sound Company

### ★ Eco Symbol product: PCs

#### Global warming prevention

- Satisfy the international energy-saving standards (International Energy Star Program)
- Conform to the Energy Conservation Law

Adopts lead-free solder to mount motherboard parts.

Recycled plastic (front panel)

**Mate box-less model**

#### Resource recycling

- Facilitate parts removal
- Adopt recycled plastic
- List materials on the product, accessories and packaging plastics.

#### Environmental awareness

- Adopt lead-free solder
- Adopt halogen-free/ phosphorus-free flame retardant using plastic (NuCycle)
- Chromium-free steel plates

### ★ Mobile phones adopting bioplastic

Adopt kenaf fiber-reinforced bioplastic for the case "FOMA® N701iECO" (launched on March 10, '06)



for branding as an environmentally sound company

## Kenaf Fiber-Reinforced Bioplastic for Mobile Phones

### FOMA N701iECO

Mar.06 on sale

- The world's first Bioplastic strengthened Kenaf fiber is used
- A part of Earth-Conscious efforts

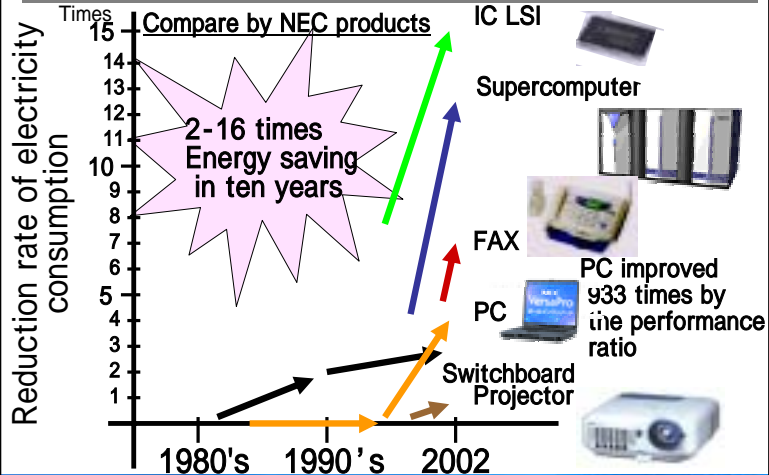
- **High biomass constituent ratio** approximately 90% in Plastics, the highest level in bioplastics used for electronic devices.
- Plant derived plastic consisting of **poly lactic acid (PLA)**, the fiber of **Kenaf** and other biomass-based additives
- Lower use of petroleum and amount of CO2 emissions
- Broken down by microorganisms in the soil
- Mechanical strength improved by adding kenaf fiber

• This product is sold by NTT DoCoMo, Inc. for Japanese market only and available on March 10, 2006.

• "FOMA" is a trademark or registered trademark of NTT DoCoMo, Inc. in Japan and other countries.

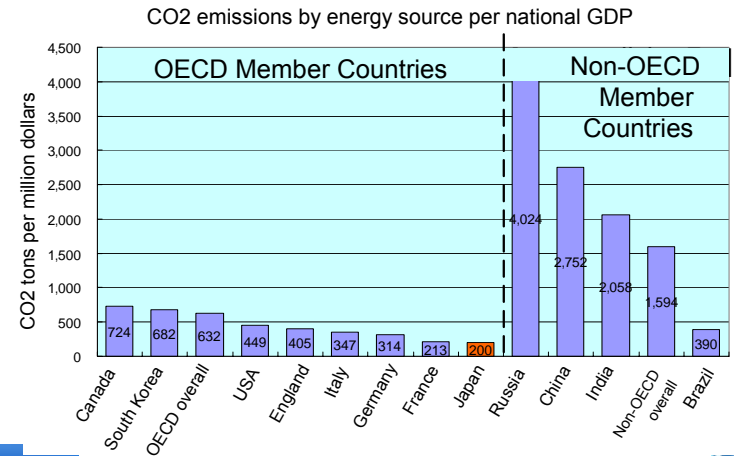
• "NTT DoCoMo" "FOMA" branding is only available to subscribers in Japan.

## Changed Energy - Saving of ICT equipments



## Efforts to global warming prevention

### Japan: No. 1 in the world in energy efficiency



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## 3R promotion of information and communication equipment in NEC



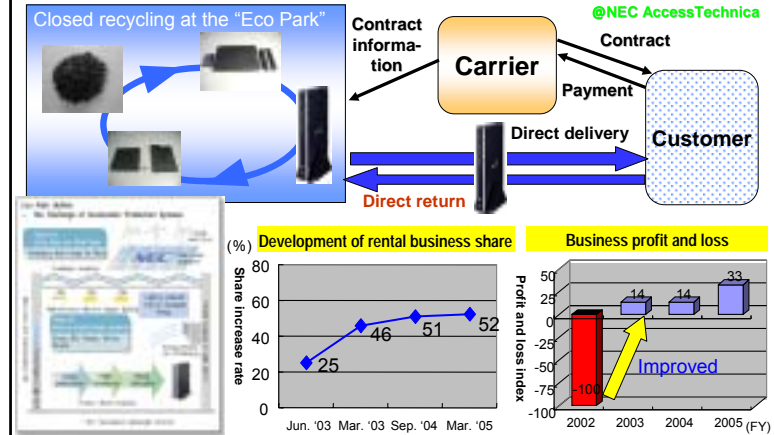
## Activities for used PC

NEC is promoting the reduce of Environmental Load by the combinations of "Reuse" and "Reduce".

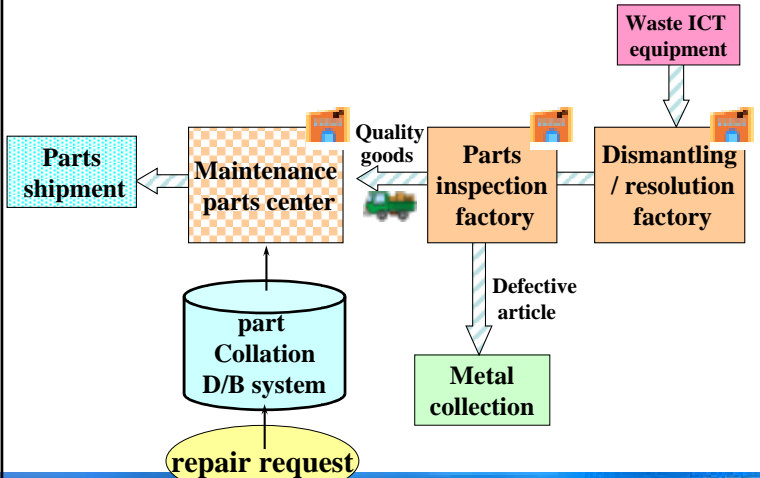


## Rental and Recycling Business Model

— NEC AccessTechnica: "ADSL Modem" Business Model —



## Reuse flow as the parts for maintenance



## Worked on the dismantling / recycling of PC



Housing disassembly



Unit disassembly



Mother board disassembly



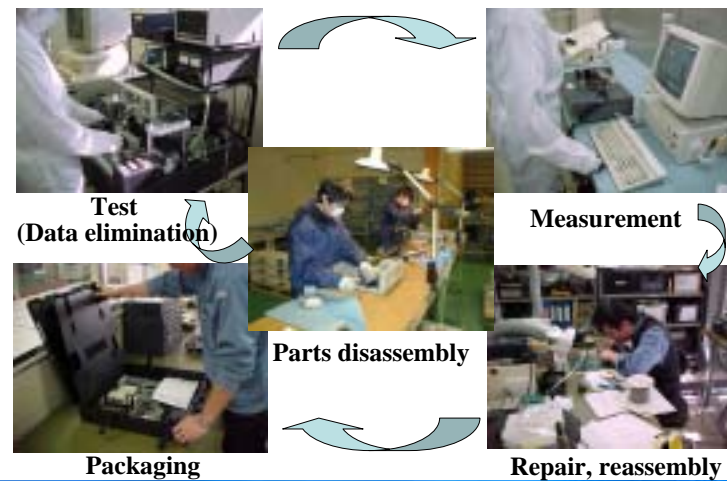
Dismantling completion



## Sorting / safekeeping of the dismantling product

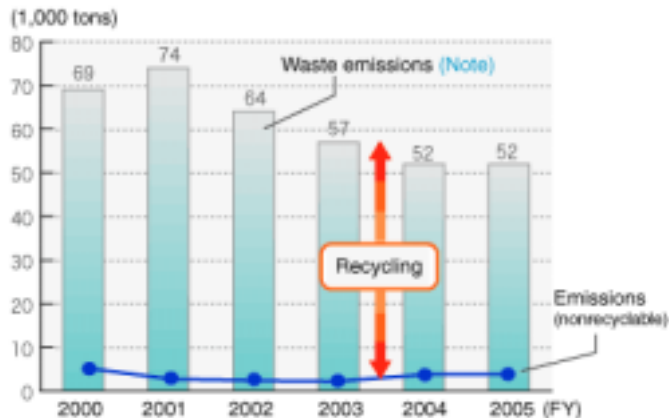


## Parts reuse work



## Waste Material Generation and Recycling

NEC began "Zero waste action" since 1985  
NEC achieved "Zero emissions" since March 2002



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- Page 36 © NEC Corporation 2007

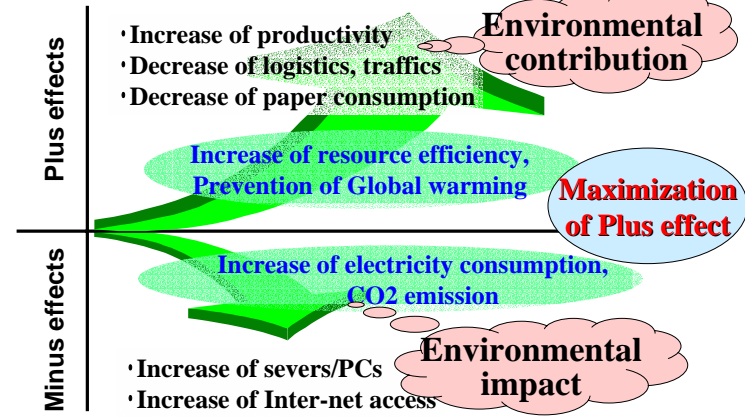
# IT innovates the social system & contributes the Environment

**Decrease of losses  
Form physical distribution (logistics)  
to information distribution**

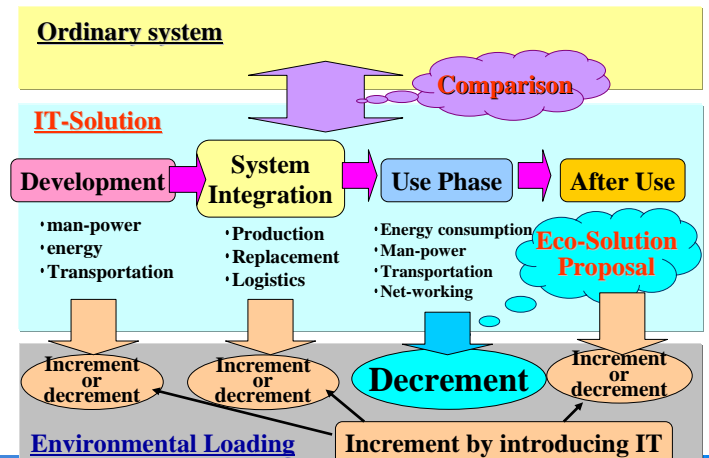


# Sustainable contribution through IT

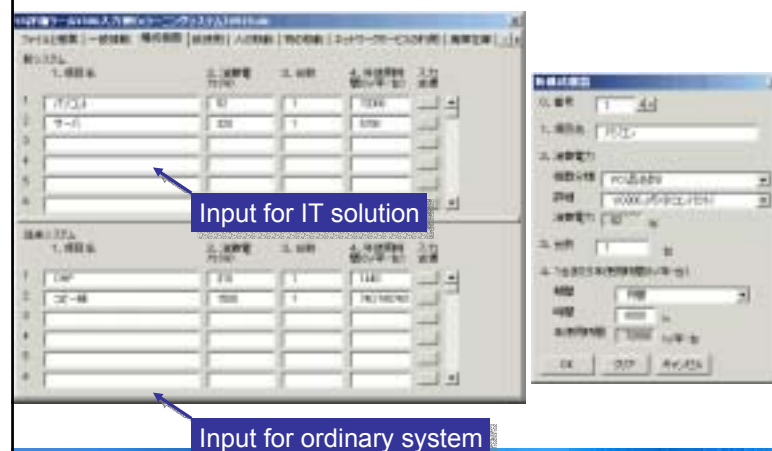
**IT has both aspects of +/- for the Environment.**



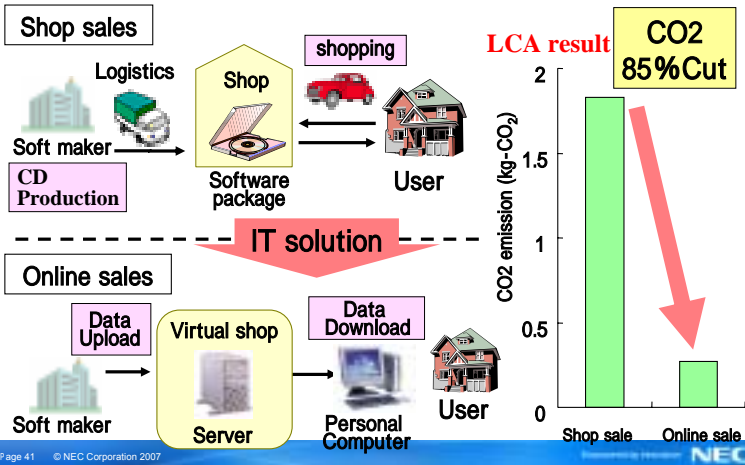
# Concept for Env. Ass. for IT-solutions



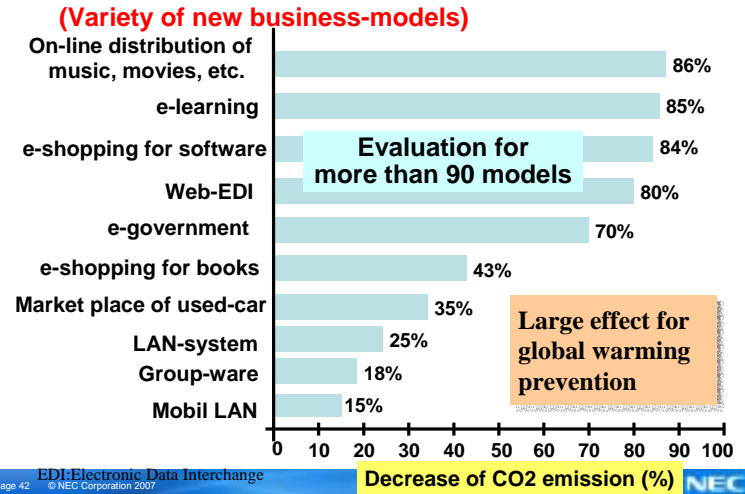
# Environmental Assessment Tool for Service / Software



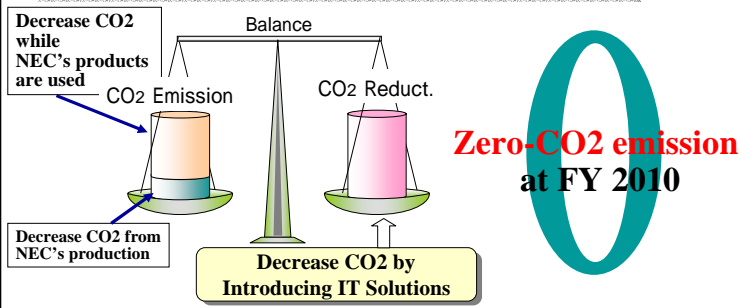
# E-shopping for software



# Decrease of CO2 emission by IT-solutions



# NEC's Environmental Vision 2010



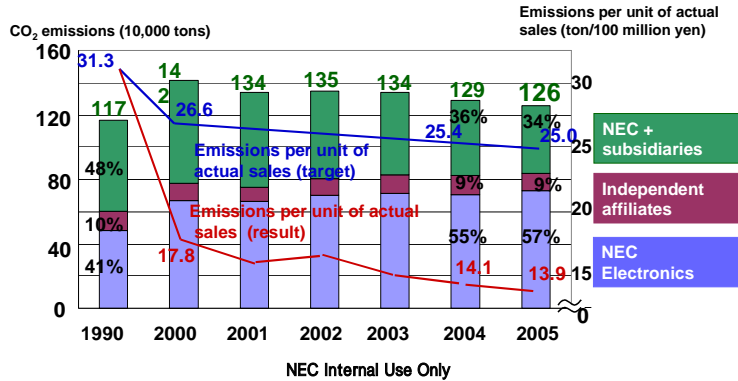
- The sale rate for IT solution: **2 times**
- Resource-productivity: **2 times**
- CO2 emission : Decreasing to **1990's level**
- Introduction of **10%** - recyclable resources & energy
- **The high environmental awareness** of all employee

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## Development of Target and Actual Energy-Derived CO<sub>2</sub> Emissions

FY 2011 target Absolute value 1.25 million tons  
 Per unit of actual sales (compared with FY 1991) 22.5 tons / 100million yen  
 Per unit of actual sales (compared with FY 2005) 13.3 tons / 100million yen



## Forestation Operations in Australia

- NEC Forest -

As an effort to absorb CO<sub>2</sub> through trees



planting operations (2002)

Growth to 10m in 3.5years(2006)

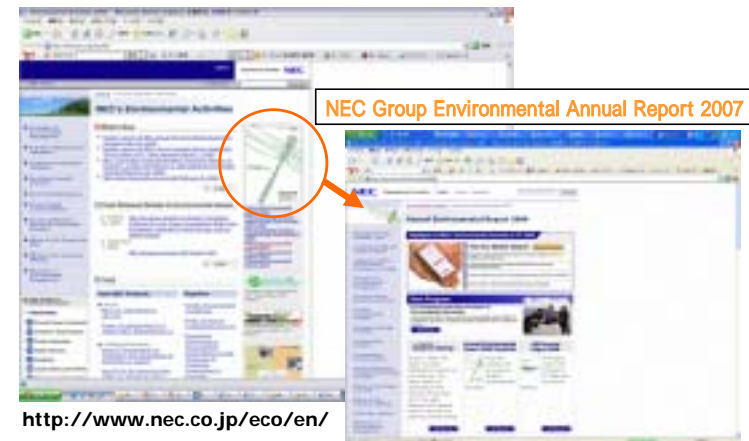
Summary of NEC Forest

Period of Plantation :from 2002 to 2011 more 10years Growth  
 Place :on Kangaroo Island, in South Australia  
 Total surface area :30 million m<sup>2</sup> (equivalent to some 2,300 times of the Tokyo Dome)  
 Absorption of CO<sub>2</sub> :1 million tons of CO<sub>2</sub> in the 20 years

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## For more Eco Information



<http://www.nec.co.jp/eco/en/>

<http://www.nec.co.jp/eco/en/annual2006/>

## NEC's Corporate Social Responsibility

Promote CSR communications including the disclosure and accountability with multi-stakeholders



CSR web site;  
<http://www.nec.co.jp/csr/en/>



Annual CSR Report

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## As a good Corporate Citizen



## Corporate Philosophy

**NEC strives through "C&C"  
to help advance societies worldwide  
toward deepened mutual understanding  
and the fulfillment of human potential.**

Established in 1990

## Environmental Charter

### Environmental Principles

**NEC will contribute to a sound environment  
and a livable society  
through technology that harmonizes  
with nature and production  
that is environmentally friendly.  
Our vision is a world where our natural  
environment  
is preserved, enabling all people of the world  
to pursue their full potential.**

Established in 1991

## Environmental Charter

### Action Plan

Preamble to the NEC statement for environmental action

NEC will make harmony with the environment one of its primary goals so that each individual within the company will act with this in mind.

Respect and preservation of the environment is our priority.

1. To produce energy and resource saving products, while giving careful thought to environmental and safety issues in development and planning.
2. To encourage the development of environmental technology on all levels: production, sales, distribution, use and disposal of a product. To introduce materials, engineering and recycling methods that will minimize adverse effects on the environment.
3. To respect and adhere to national and regional environmental regulations. To strive to strengthen and enforce even stricter environmental NEC standards.
4. To contribute positively to society through an environmental management program with a global perspective, while educating and raising the environmental consciousness of all company members.
5. To provide a structured administrative organization for environmental management, with executives in charge of different areas, delegate responsibilities, and be in the forefront of environmental matters at all times.
6. To maintain and strengthen an independent environmental management, and implement improvement measures based on internal environmental company audits.
7. To contribute to environmental protection, by continuously making public announcements on the latest NEC developments in environmental technologies and management methods.

## Basic Policy for

### FY2005 Mid-term Environmental Plan

Realization of "Ecology through IT" with a unified effort by NEC!

1. Promotion group-wide environmental management
2. Environmental soundness in all products and solution businesses
3. Thoroughgoing environmental impact reduction (Zero Emissions, etc.)
4. Fulfillment of Environmental communications
5. Increasing of all employees' environmental awareness



Tokyo University: Global Env. Policy 2007

Represented by  
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## Let's think about (1)

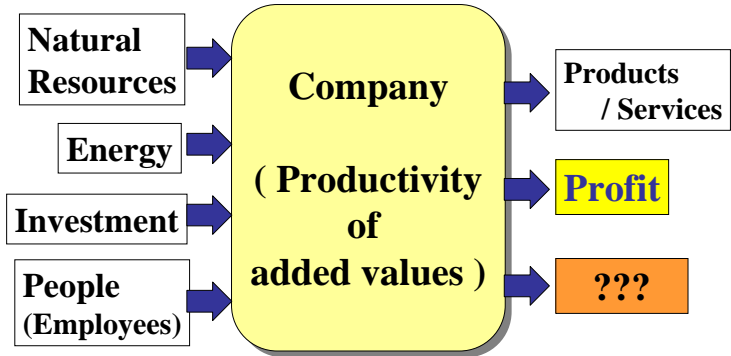
- Environmental Policy of Private Company -

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# 1. What's the private company ?

What's your Answer?

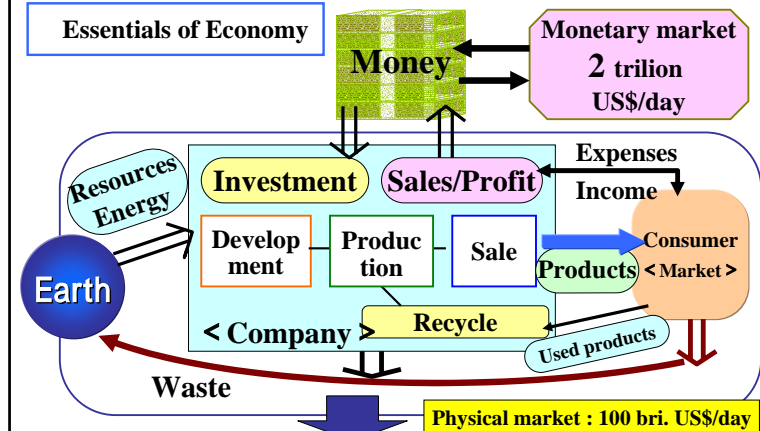
# What is "The Company" ?



# 2. What's the Environmental Problems ?

What's your Answer?

# Review of the modern economic system

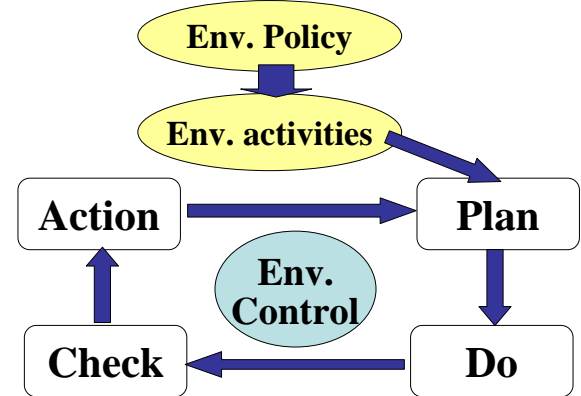


*Toward serious Environmental Problems*

### 3. What's the Management System ?

What's your Answer?

### Environmental Management System (EMS)



IT、で、エコ  
ITで環境を  
ITで環境を

### (Ecology through IT)

★ We are helping customers and society as a whole contribute to environmental conservation through our IT businesses.