Green Concept to Green IT

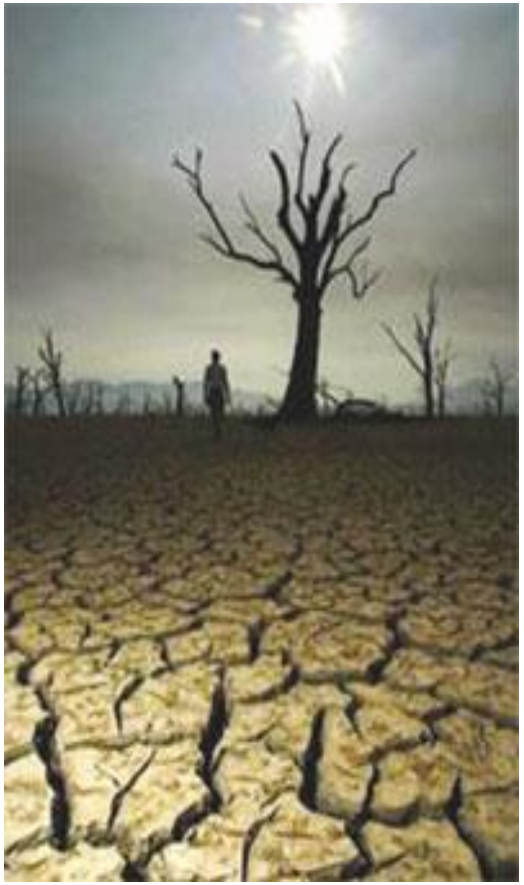
- Why Green, Not Yellow or Red ?

Environment in Present Days

Traffic jam everywhere in big cities

Environment in Present Days

Air pollution, Water pollution, Land pollution



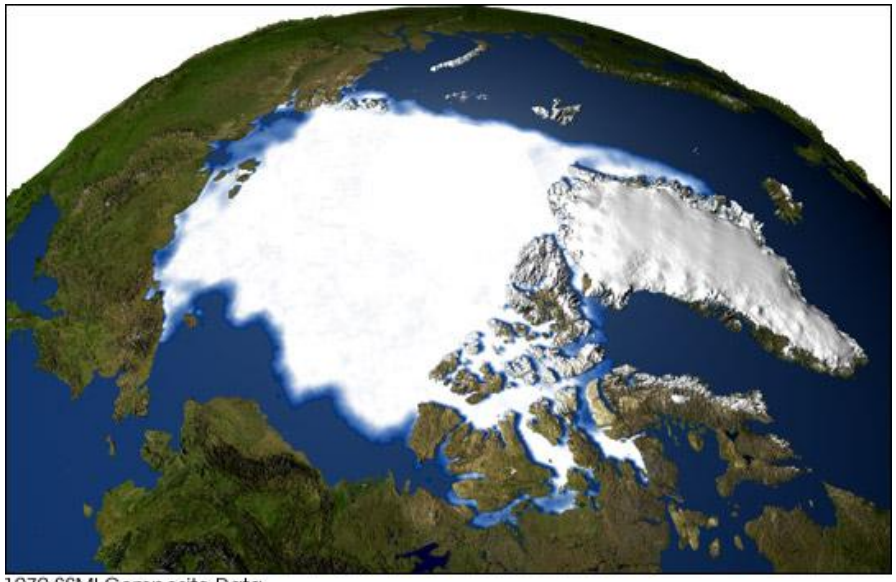
Environment in Present Days

- Stressful, painful working offices

Global Effects

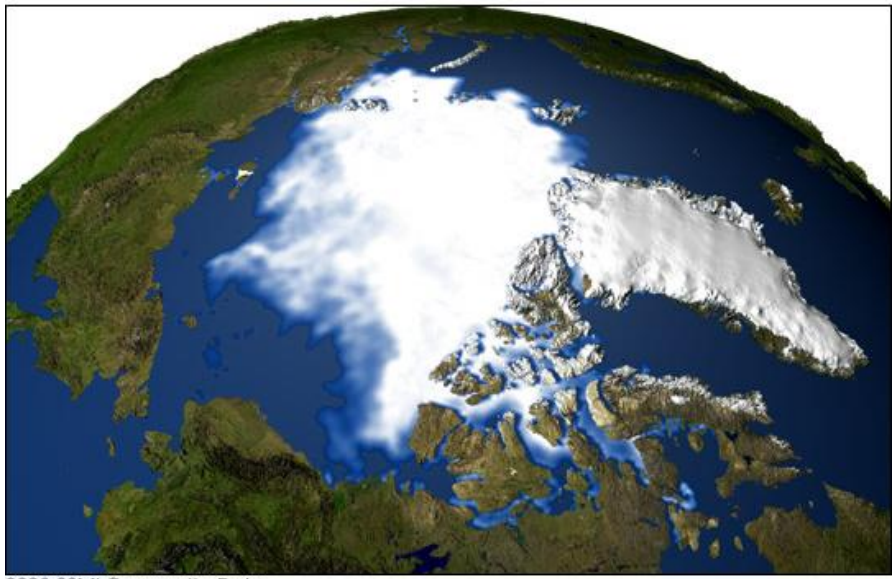
- Global warming :
  Ice cap at the North Pole continues to shrink!

1979



1979 SSMI Composite Data

2003



2003 SSMI Composite Data

Global Effects

- Climate change

Global Effects

- Electronic wastes :

  In the U.S. alone, 500 million obsolete computers, and 130 million cell phones are thrown out every year.

Global Effects in the Future

Snow in Bangkok

Tornado hits Nakornsawan

Green Concept

- Planet à Environmental benefits
- Prosperity à Economic benefits
- People à Social benefits

è Sustainable development

Green IT

The study and practice of using computing resources in an efficient, effective and economic way.

Examples of Green IT

- ü Energy saving
- ü Disposal of electronic waste
- ü Virtualization of server resources
- ü Regulatory compliance
- ü Telecommuting
- ü End user satisfaction
- ü Return on investment

Early Initiatives of Green IT

- Energy Star

- TCO Development

Regulations & Industry Initiatives

- Government
- Industry
  - ü Climate Savers Computing Initiative (CSCI)
  - ü Green Computing Impact Organization (GCIO)
  - ü Green Electronic Council
  - ü The Green Grid

Approaches to Green IT

- Virtualization
- Power management
- Material recycling
- Telecommuting

Virtualization

- The process of running two or more logical computer systems on one set of hardware.

Virtualization

- Virtualization helps a company / enterprise lower power and cooling consumption, by reducing the number of machines and servers it needs.
- Virtualization platforms can run across hundreds of interconnected physical computers and storage devices, to create an entire virtual infrastructure.

Power Management

- Energy Star 4.0 compliant PCs

Now 80% power efficiency

Next 90% efficiency by 2010

- Energy Star 4.0 compliant servers

Now 85% power efficiency

Next 92% efficiency by 2010

Caution : Screen savers do not save energy !

Power Management

- Power Supply
- Storage
- Display

Material Recycling

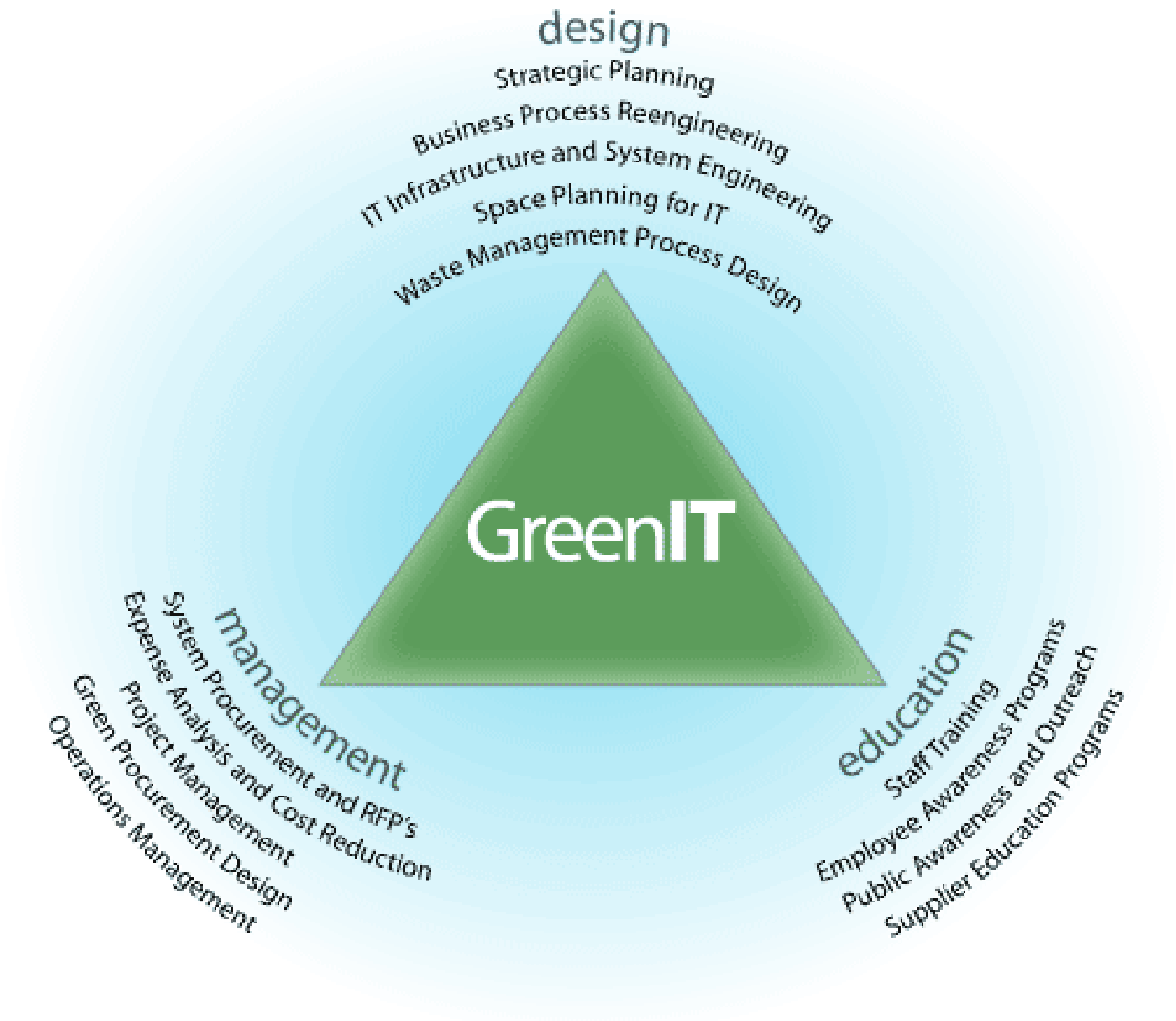
- HR233, the U.S. National Computer Recycling Act
- e-Waste handling

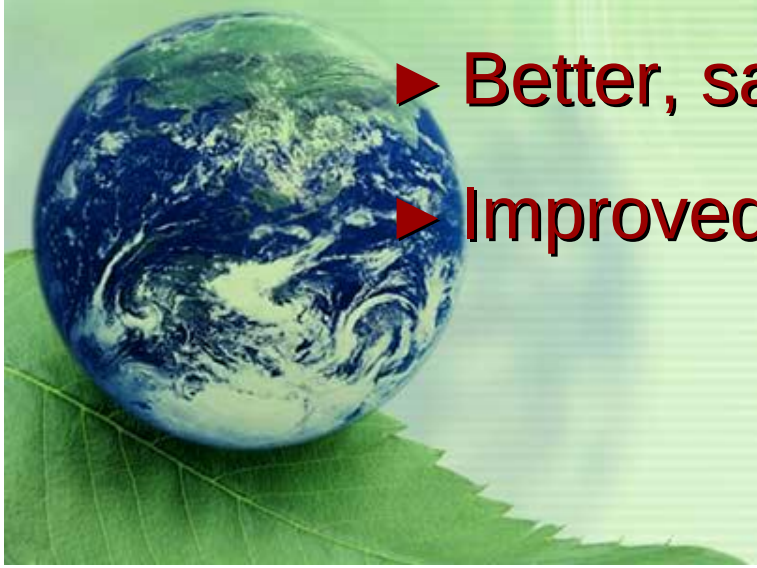
Telecommuting

- Teleconferencing and telepresence technology

Telecommuting

- Working at home


design
Strategic Planning
Business Process Reengineering
IT Infrastructure and System Engineering
Space Planning for IT
Waste Management Process Design
GreenIT
management
System Procurement and RFP's
Expense Analysis and Cost Reduction
Project Management
Green Procurement Design
Operations Management
education
Staff Training
Employee Awareness Programs
Public Awareness and Outreach
Supplier Education Programs

Multiple Benefits

- Baht savings
- Elimination of utility shortfall
- Capital improvements
- Maintenance savings
- Better, safer lighting
- Improved temperature control and comfort