

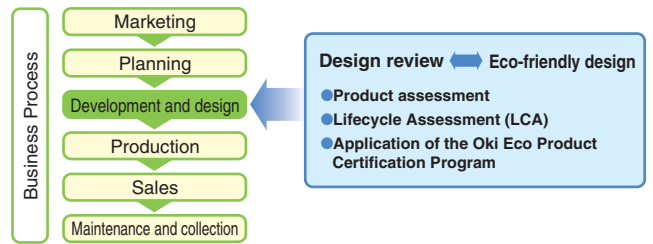


# Environmental Conservation Activities

## Reducing the Environmental Impact of Products

### Efforts for the Entire Product Lifecycle

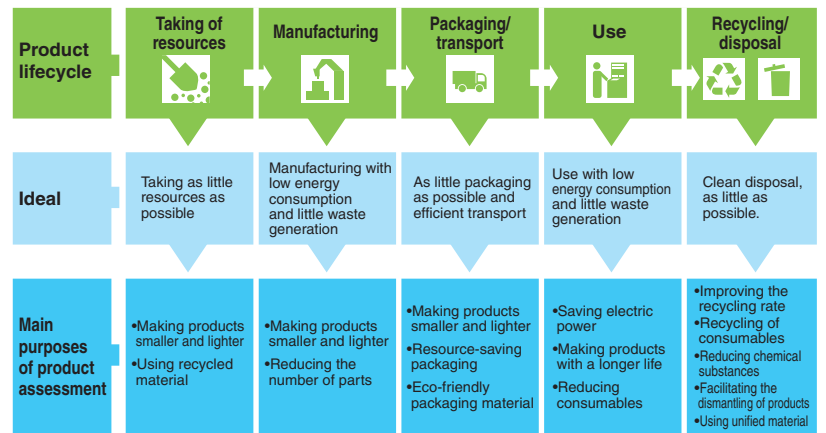
To reduce the environmental impact of a product from the development/design phase, we need to assess the environmental impact – energy and resource conservation, recyclability, cutting of chemical substances, and others - throughout the lifecycle of the product and act on the results. The Oki group works to reduce the environmental impact of its products by conducting product assessment or Lifecycle Assessment (LCA), and also by running the “Oki Eco Product Certification Program”.




### Operation of Product Assessment


Product assessment is a system to ease the environmental impact of a product by comparing the “model to be designed” with a “reference model” (the previous model, etc.) with respect to established evaluation items (for example, energy conservation, resource conservation, recyclability), and repeating the design process until the judgment criteria are cleared. Evaluation items and judgment criteria are determined separately for each segment – information processing equipment, printers, telecommunications equipment, and so forth – to ensure that the assessment fits the characteristic of the product. The following presents an example for the main evaluation items and criteria for telecommunications equipment. The Oki group introduced a product assessment scheme in fiscal 1995, and has been conducting product assessment since.

#### Points Considered in Product Assessment



#### Product Assessment: Examples for Main Evaluation Items and Judgment Criteria for Telecommunications Equipment

Product Body		Evaluation Items	Judgment Criteria (comparison with reference model)
 <p>IPstage®** BV1270</p>	<b>Energy conservation</b>	Energy consumption during operation and in stand-by mode	Reduction of power consumption
			Compliance with energy conservation laws and the International Energy Star Program
	<b>Resource conservation</b>	Making smaller and lighter products	Reduce product volume and mass
		Use of recycled resources, etc.	Increased use of recycled resources (recycled plastic, etc.)
	<b>Recyclability</b>	Potential for recycling, such as by reuse, or by resource recovery	Increase of recyclability = mass of recyclable resources/mass of product itself x 100
	<b>Ease of product dismantling</b>	Making it easier to dismantle, collect and transport the product	Reduction of maximum volume and maximum size of dismantled product
		Structure that allows easy dismantling of product and separation of materials	Reduction of the number of required tools and special tool types (reduction of special screws and nuts, etc.)
		Separability of materials	Easiness of removing batteries
<b>Making products with a longer life</b>	Support for version upgrades	Reduction of the types of material	
<b>Reduction of chemical substances contained</b>	Preventing environmental pollution during use and disposal	Easiness of separating product into individual materials (indicate material type)	
		Adaptability through exchange of packages or download functions.	
			Increased reduction ratio of environmental pollutants contained in products
			Adequate instructions on treatment in case these substances are contained

Packaging		Evaluation Items	Judgment Criteria (comparison with reference model)
 <p>Package carton of the IPstage®** BV1270</p>	<b>Resource conservation</b>	Reduced quantity of material used	Reduce used quantities of wood (including plywood), corrugated cardboard (raw material for paper)
		Reduce the number of nails and staples	
		Reduce the used quantities of foam material, resin boards, and other sheets.	
	Making the packages smaller	Reduce the ratio of vacant space in packages = (Total volume – product volume) / Total volume x 100	
<b>Recyclability</b>	Promotion of resource recovery	Reduce the number of parts where resource recovery is impossible	
	Promotion of reuse	Use of recycled paper from corrugated cardboard	
<b>Reduction of chemical substances contained</b>	Control of the generation of hazardous substances	Do not use environmental pollutants	
<b>Collectability</b>	Easiness of material separation	Reduce the number of points where different materials are joined	
<b>Disposability</b>	Disposability	Make it possible to fold and crush package for disposal	
	Indication of material type	Provide suitable indication in accordance with the Containers and Packaging Recycling Law	

\*\*1) IPstage®: A registered trademark of Oki Electric.



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### Efforts for Lifecycle Assessment (LCA)

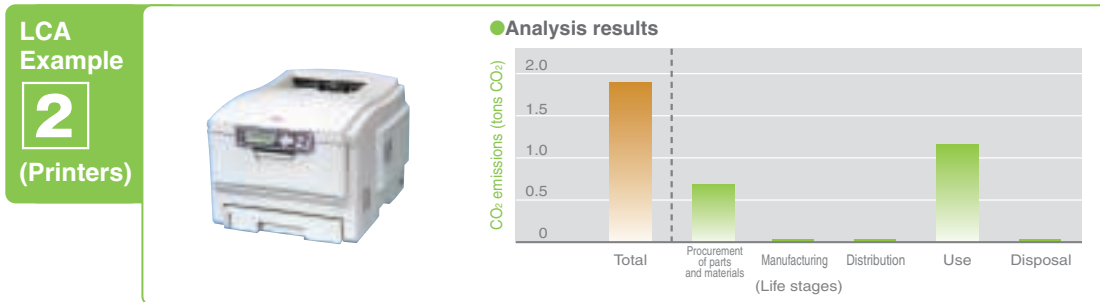
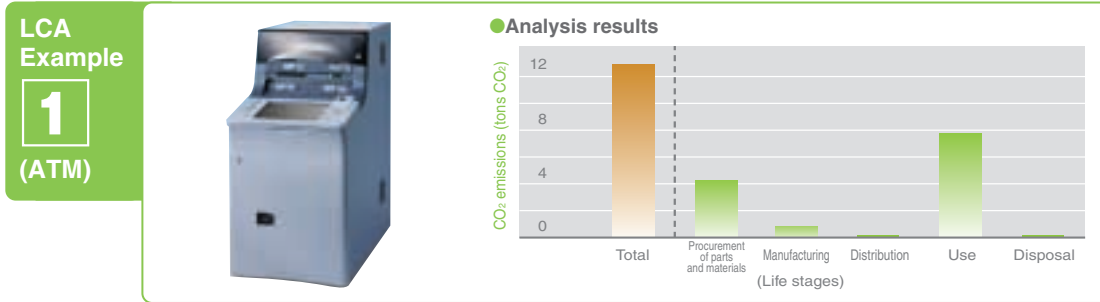
With product assessment, it is impossible to analyze in what stage of its lifecycle a product has its largest environmental impact. This is why product assessment has the problem that effective countermeasures are difficult to find. To make up for this, we are promoting an assessment method called Product Lifecycle Assessment (LCA).

#### LCA Evaluation

LCA is a method of evaluating effects on the environment by quantifying flows of material and energy throughout the lifecycle of a product or service from production up to its disposal in a comprehensive way. It is an effective technique to grasp the environmental impact of a product throughout its lifecycle. Up to now, we have been conducting product assessment of, for example,

Automated Teller Machines (ATM) or printers. When comparing CO<sub>2</sub> emissions, we found that, in every case, the environmental impact is the largest during the use by the customer. We utilize the LCA results for the design of our products.

We will continue to use LCA as a tool for eco-friendly design.



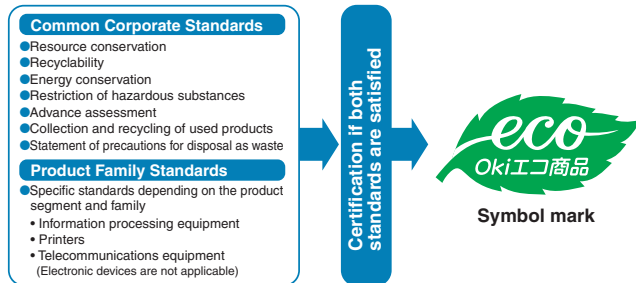
### Creation of Oki Eco Products (Products Certified by Oki's Certification Program for Eco-friendly Products)

Oki has been operating the "Oki Eco Product Certification Program" since fiscal 2001 in order to provide customers with products that are friendly to the environment.

#### Oki Eco Product Certification Program

The "Oki Eco Product Certification Program" internally certifies products that meet Oki's original environment standards as "Oki Eco Products." The program also provides the customer with environmental information on the product. Certified products bear a symbol mark in catalogs or user manuals, and are published on the Internet together with the certification standards. Products that satisfy both the standards common to all products (common corporate standards) and the individual standards that incorporate characteristics specific to each product (product family standards) are certified as "Oki Eco Products."

#### Flow of Oki Eco Product Certification



#### Transition in Oki Eco Product Certifications

The number of products certified under the "Oki Eco Product Certification Program" is growing every year, as the graph on the right shows. In fiscal 2004, eight models were newly certified as Oki Eco Products, bringing the total number of certified models to 36. We will continue to add new models to the group of certified Oki Eco Products. For examples of Oki Eco Products, please see pages 13 and 15.

#### Transition in Oki Eco Product Certifications (Accumulated)

