

The Ricoh Group promotes sustainable management based on the Comet Circle concept.

Comet Circle

The Comet Circle is a graphic representation of a society that recirculates resources. The upper route represents the “arterial system” while the lower one the “venous system.” The spheres in the diagram represent the partners that comprise the recycling-based society. Resources taken from the natural environment by materials suppliers shown in the upper right are processed into products, moving from right to left along the upper route, and are finally delivered to users. The economic values of the resources increase in the process and are the highest when the final products are delivered to users. The end-of-life products move from left to right along the lower route. To achieve a sustainable society that recirculates resources, it is necessary to recycle products on the inner loops of the Comet Circle and promote recirculation that is highly economic and causes less environmental impact. Also, the partners represented by spheres need to reduce their own environmental impact below the level that the self-recovery capability of the natural environment can deal with.

Improving Sustainable Management

To promote its defined environmental management, the Ricoh Group is promoting the development of products with less environmental impact¹, contributions to reducing environmental impact by customers², and the profitability of the recycling business³. In the past, the development of a recycling business did not succeed because the social infrastructure was mainly based on the arterial system. The Ricoh Group is making efforts to turn the social infrastructure into one that is based on the arterial as well as venous systems and improve the standards of recyclable designs to make its recycling business profitable on a global scale.

1. See pages 16, 35–44, and 47–52.
2. See pages 17 and 38.
3. See pages 41 and 58.

Facilitating Environmental Conservation through Partnerships

The Comet Circle represents partnerships as well as the environmental conservation concept of the Ricoh Group. At present, customers decide what to buy and which companies are more valuable to them based on the product’s performance, which countries or regions these products were manufactured in, and how they were manufactured. The Ricoh Group supports its suppliers¹ and recycling companies² in terms of business improvement, quality improvement, and environmental conservation. We also actively develop and propose new products to contribute to reducing the environmental impact by customers³.

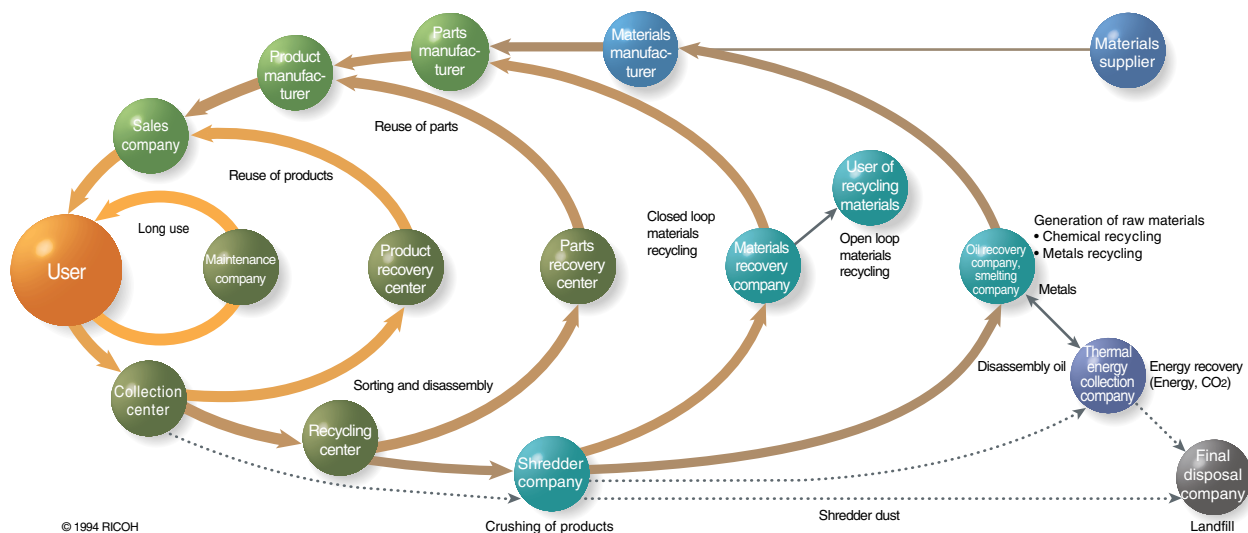
1. See pages 44, 45, and 72.
2. See page 72.
3. See page 55.

Expanding Partnerships

To develop a sustainable society, we need to expand our partnerships. For example, we recycle waste plastic from our products to be reused by ourselves and other industries. In fiscal 2002, we succeeded in manufacturing plastic parts¹ using waste plastic from polyethylene terephthalate (PET) bottles, which are disposed of by an outside industry. Also, we are starting a new Zero-Waste-to-Landfill campaign based on the idea of returning the natural resources used in business activities to the natural environment after use. This means that a new concept—“from ecosystem to ecosystem”²—is added to the Comet Circle.

1. See page 17.
2. See page 18.

Concept for Realizing a Society that Recirculates Resources: The Comet Circle™



(1) Determine and Reduce Environmental Impact at All Stages

A society that recirculates resources must minimize the total environmental impact it causes by reducing it at all stages, including the transportation stage (the entity represented by a sphere in the Comet Circle diagram). For this reason, the Ricoh Group, suppliers, customers, and recycling companies must first determine the degree of environmental impact at all stages, including the transportation stage, by using an environmental management information system and then reducing it by using the latest environmental conservation technologies and promoting recycling and collection systems all over the world.

(2) Priority on Inner Loop Recycling

Resources have the highest economic value when they are manufactured into products and used by customers. The Ricoh Group puts priority on reducing, reusing, and recycling products on the inner loops of the Comet Circle, aiming at minimizing the resources, cost, and energy needed to return used products to their highest economic value.

(3) Promoting a Multitiered Recycling System

Repeated recycling to the furthest extent possible (i.e., multi-tiered recycling) reduces the consumption of new resources and the generation of waste. The Ricoh Group is developing activities to achieve this goal, such as recycling its products as well as waste from other companies or industries, e.g., making toner cartridges from used PET bottles.

(4) More Economically Rational Recycling

A society that recirculates resources must also establish a recycling system in which products and money flow in opposite directions in both post-product-use stages and original production and marketing stages. The Ricoh Group, making use of an upgraded design, is promoting a more economically rational recycling system in partnership with recycling companies. At the same time, it is important to establish a social system that helps people to be aware of environment-friendly business activities and buy products with less environmental impact.

(5) Partnerships at Every Stage

The Ricoh Group, as a manufacturer, is limited in what it can do to reduce the environmental impact caused at each stage of production. The Ricoh Group can effectively reduce environmental impact and recycling cost only by decreasing its usage of chemical substances with the cooperation of materials and parts manufacturers, urging customers to use products that have less environmental impact or use products in ways that produce less environmental impact, and improving efficiency in the transportation of products to be marketed as well as used products. Thus, environmental impact can be reduced effectively in an economically rational way by forming a partnership at every stage. The Ricoh Group helps reduce the environmental impact caused by society as a whole by sharing the information and know-how it obtains through its activities in the community. We look at partnerships as a sharing of information, and we regard any stakeholder who receives information as our partner.