12th Energy Management Action Network Workshop (EMAK #12)

Ricoh commitment to Zero-carbon society and Circular Economy

- M. Robert Wuest  
- Reuse and Recycle Business General Manager

December 2023 13th • Version 1.5 • 14h30 - 14h55  
EMAK workshop #12 • Hotel Hilton Opéra 108 rue Saint-Lazare 75008 Paris (FR)  
Ricoh Industrie France • 144 route de Rouffach 68920 Wettolsheim (FR)
Ricoh Industrie France

Presentation by M. Robert Wuest
Reuse and Recycle Business General Manager

12th Energy Management Action Network Workshop (EMAK #12)
A. Sustainability management at Ricoh Group
Overview of Ricoh Group

Tackling the challenge of transforming from a hardware company to a digital services company

Number of Group Employees
- 81,017
  - Japan: 31,800
  - Americas: 19,277
  - Europe, Middle East, Africa: 16,234
  - Asia Pacific: 13,756
  (March 31, 2023)

Global Market Share*
- No.1 for 20 consecutive years
  (2002~2021, A3 color MFP and Copiers Shipped)

Overseas sales ratio
- 62.3%
  (FY ended March 2023)

Number of affiliated companies
- 240 companies
  (March 31, 2023)

Consolidated net sales
- 2,134.1 billion yen
  (approx. 13Md€)
  (FY ended March 2023)

Number of countries and regions in which we operate
- 198 countries and regions
  (including vicarious countries)

*Source
IDC's WW Quarterly HCP Tracker, 2022Q2, Color Laser MFP/SF DC, A3 Only, Speed Range A4: excl 91+ppm, Shares by Company, Year: 2002-2021
Business domains

**RICOH Digital Services**
Office Services and Office Printing  (sales)
Value provided
Solutions for people working in offices and remotely
Solutions for frontline workers

**RICOH Digital Products**
Office Printing  (development, production and OEM)
Value provided
Edge devices connecting workers
Manufacturing that supports digital services

**RICOH Graphic Communications**
Commercial Printing and Industrial Printing
Value provided
Solutions for printing site workers

**RICOH Industrial Solutions**
Thermal Media and Industrial Products
Value provided
Solutions for manufacturing, logistics, and industry workers

**RICOH Futures**
Smart Vision, healthcare, and environment  (new materials and energy harvesting) New businesses
Value provided
Creating new businesses to resolve social issues

Telecommuting package that makes it easy to deploy a teleworking environment
RICOH IM C3010 color laser MFP
RICOH MH5320/5340 industrial inkjet printhead
Thermal transfer ribbon used in apparel care label
360° Camera 「RICOH THETA X」
Alignment of Business and ESG (Environment Social & Governance)

Contribute to improving global sustainability while also achieving sustainable growth for our own company

President & CEO: Akira Oyama

Establish a management system and making it a personal matter for each and every employee
Positioning ESG as a Future Finance from 2020 and setting financial targets and company-wide targets in the Mid-Term Management Strategy.

Future Finance = Activities that will have a positive impact on finance in 3~5 years by working on it now.
Commitment and Recognition: ESG evaluation

Sustainability promotion structure

**Board of Directors**
Monitor, supervise and advise on ESG-related business plan, ESG management risks and opportunities

**President and CEO**

**Management Committee** (Group Management Committee)
- CFO

- Internal Control Committee
- Information Security Committee

**Risk Management Committee**

**Disclosure Committee**

**Investment Committee**

**ESG Committee**
Continuously discusses medium- to long-term environmental, social, and governance issues with management to improve management quality (held once a quarter)
- **Chairman**
  - President and CEO
- **Members**
  - CFO, CTO, CDIO, CHRO
  - Including business unit presidents, Group Headquarters officers Audit & Supervisory Board Member (attend as an observer)

**Time allocation by agenda item at the Board of Directors (%)**

<table>
<thead>
<tr>
<th>FY2021</th>
<th>FY2022</th>
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<tbody>
<tr>
<td>20.0</td>
<td>10.3</td>
</tr>
<tr>
<td>16.1</td>
<td>28.1</td>
</tr>
<tr>
<td>25.1</td>
<td>22.6</td>
</tr>
<tr>
<td>38.8</td>
<td>39.0</td>
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- : Medium-to long-term items
- : Financial results reports (including crisis response)
- : ESG
- : Other*

*Resolutions in accordance with the provisions of the Companies Act, personnel matters, other individual proposals, etc.
Seven Material Issues (important social issues)

In the two areas of “Resolving social issues through business” and “Robust management infrastructure”, we identified seven material issues (important issues) and set ESG goals linked to each materiality.
RICOH Decarbonization Target


Active and effective use of renewable energy
- Purchase of power with a high renewable energy ratio
- In-house renewable energy power generation
- Strategic utilization of renewable energy certificates
- Search of new approaches such as power purchase agreements

Thorough development of energy-saving and CO₂ reduction activities
- Improvement of production and business processes
- Installation of highly efficient and energy-saving equipment
- Promotion of electrification of production process and fuel conversion
- Promotion of Net Zero Energy Building
- Operational reform of corporate fleet vehicles and shift to electric vehicles

Increase in avoided emissions
- Provision of digital services
- Provision of energy saving products
- Resource saving of products

For Scope 3 emissions in 2050, create avoided emissions that exceed GHG emissions

Avoided emissions

<table>
<thead>
<tr>
<th>Scope 3 (without numerical goal)</th>
<th>(1,000t-CO₂eq)</th>
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<tbody>
<tr>
<td>3,320</td>
<td></td>
</tr>
<tr>
<td>529</td>
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</table>

Scope 3 (with numerical goal)

Procurement Transportation Use

Avoided emissions

2,333

Scope 3 40% reduction

Scope 1 and 2 (with numerical goal)

Avoided emissions

458

Scope 1 and 2 63% reduction

FY2015 (base year)

CY2030 (target year)

Using internationally accepted methods to offset Scope 1 and 2 emissions in 2050

CY2050 (target year)
FY2022 results (ending March 2023)

For renewable electricity we adapt several methods including PPA, Green Electricity Menu, Self Generation and EAC to achieve our target.

PPA=Power Purchase Agreement
EAC=Energy Attribute Certificates

Notes:
1. Updated figures for fiscal 2015, fiscal 2021, and for 2030 reflect impacts of acquisitions and revisions of some regional data.
2. Updated figures for fiscal 2021 reflect impacts of acquisitions and revisions of some regional data.
3. Additional renewable energy accounting for at least 35%.
Scope 3 emissions

Measures and plans aimed at 40% reduction in the three major categories of Scope 3 in 2030

- Energy conservation, size and weight reductions of our multifunctionnal printers
- Sale of Remanufactured machines and the use of recycled materials
- Adoption of low-carbon materials
- Transportation efficiency

Cat1 = Reuse products/Products Ecodesign size and weight reduction/Recycle material/Low carbon material
Cat4 = Transport loading efficiency/Cooperation with transport contractors
Cat11 = Energy conservation in products
Environmental sustainability improvements

**Ricoh Intelligent Devices**

- **Recycle**
  Plastic parts made of 50% post-consumer recycled plastics.

- **Reduce**
  54% reduction in single-use plastic in packaging.

- **Energy savings**
  New low-melt toner and reduced energy consumption.

- **CO2 reduction**
  Lowest-tier TEC values relative to current competition.

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**Reduce your carbon footprint**

RICOH IM C6010 910 kg-CO₂

27% less than previous products
In 1994, Ricoh established the Comet Circle as the basis to realize change towards the creation of a Circular Economy.

Four Action Guidelines Based on Comet Circle Concept (Revised as of March 3, 2022)

1. Identify and Reduce Environmental Impact from Lifecycle Perspectives
2. Deploy Reuse and Recycle Practices with Lower Environmental Impacts
3. Establish a Circular Business Model
4. Partner with Stakeholders
Goals and Approach for resource conservation

Ricoh Group environmental goals (resource conservation)

Goals for 2030
- Virgin material usage ratio for products: 60% or less

Goals for 2050
- Virgin material usage ratio for products: 12% or less

*1 Virgin material usage rate is the usage rate of new resource inputs to total resource inputs of products.
*2 Quoted from the National Institute for Materials Science (NIMS) publication
   The resource conservation target is set based on the idea that "in order to use sustainable resources, it is necessary to reduce the total amount of resources used to 1/8 compared to 2000 level".

Specific targets and goals for plastic
- Use of post-consumer recycled plastics for imaging products
- Goals for 2030: Post-consumer recycled plastic content rate of 50% or more
- Reduction in packaging materials for virgin plastic derived from fossil resources
- Goals for 2030: 50% or more reduction compared to 2020 level.
- Display resin identification code and single material use
- Goals for 2025: Clearly indicated on all parts and all packaging materials

Approach to the 2030 goal (Virgin material usage ratio for products)

- Reduce and Long-Term Usage
- Reuse (Products and Parts)
- Material Recycle (Plastic and Metal)
B. Ricoh Industrie France contribution to Ricoh’s plan to realize a Zero-carbon society and Circular Economy
Built in 1987, the Ricoh Industrie France production site is now emblematic of the way in which the Ricoh Group applies the concept of sustainable development combining the sustainability of the company with active and responsible protection of the environment.

- **182 M€** TO FY22
- **21 ha** surface
- **5x8** 24/7
- **>600** employees
Two main activities in 2023

**THERMAL MEDIA**

- Thermal Paper
- Thermal transfer ribbons

**CIRCULAR ECONOMY**

- Renewed Parts and Supplies
- Remanufacturing of Multi-Functional Printers
- Material Recovery
- Repairing as a service
Ricoh Industrie France: our energy savings strategy

Cutting greenhouse gas emissions from our business

Ricoh is actively pursuing a strategy to reach net zero emissions by 2050

Shorter-term target of 63% reduction in direct emissions by 2030

Also targeting 40% reduction in indirect emissions by 2030

RICOH INDUSTRIE FRANCE’S ENERGY SAVINGS RESULTS

- Implementation in our production processes of low energy consumption equipments or devices allowing the processes to run with more energy efficiency
- Through R&D optimize our products to permit to produce them consuming less energy

FY22
The objective of this project was to reduce the consumption of gas used to dry thermal paper after coating operations. This is the most energy-intensive process on our production site.

**The Solution**
A project has been defined to invest in a heat recovery installation for one drying area in order to reinject heat into the process.

Expected savings: **223kW**

**The Impact**
Results after investment:

- **280kW** recovered
- 61 Tons in 2022

Project to extend the solution to a second dryer.
Ricoh has a global commitment to ensure 50% of all electricity comes from renewable sources by 2030.

Targeting 100% renewable electricity at all major sites by FY2030.

Our global switch to renewable energy is modelled to result in a CO2 reduction of 2,000 tonnes per year.

Proud members of the RE100.

Ricoh Industrie France: our energy savings strategy
Scope 3 periodic evaluation and reporting.

Action plan definition to reduce our scope 3 impacts:
- Transport management, raw material production, waste reduction, packagings optimization...

Carbon footprint modelling:
- For thermal paper done in November 2023
- For GreenLine reuse printers in progress

Project to cover 50% of our car park areas with solar panels.
Quotation in progress

SCOPE 3 Activités 4R

CLIMAT Carbon footprint

Photo Voltaic project Renewable energy production
Ricoh Industrie France: the European factory
Contribution to the Ricoh Group CE vision

Ricoh Industrie France contributes to the achievement of the Ricoh Group environmental goals

Resolving social issues through business

- **Materiality**: Strategic Intent
- **2030 Targets**: Focus Domains
- **21st MTS ESG Targets (End of FY2025)**

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Strategic Intent</th>
<th>2030 Targets</th>
<th>Focus Domains</th>
<th>21st MTS ESG Targets (End of FY2025)</th>
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<tr>
<td>Creativity from Work</td>
<td>To provide digital services that transform the way customers work, and help them improve productivity, innovation, and value creation</td>
<td>Customer survey scores</td>
<td>2030 Targets</td>
<td>Focus Domains</td>
</tr>
<tr>
<td>Community and Social Development</td>
<td>To contribute to the maintenance, development, and efficiency of community and social systems. We leverage our technical expertise and customer connections to expand the areas where we provide value.</td>
<td>GE MBA</td>
<td>30 million people</td>
<td>Number of people to whom we have contributed by improving social infrastructure</td>
</tr>
<tr>
<td>Zero-Carbon Society</td>
<td>To decarbonize the entire value chain and create business opportunities by contributing to carbon neutrality.</td>
<td>GHG scope 1, 2 reduction rate (incl. FY2025)</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Circular Economy</td>
<td>To create business opportunities by building a circular economy business model for ourselves and our customers.</td>
<td>Virgin material usage ratio</td>
<td>80% or less</td>
<td></td>
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Robust management infrastructure

- **Materiality**: Strategic Intent
- **2030 Targets**: Focus Domains
- **21st MTS ESG Targets (End of FY2025)**

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<td>Responsible Business Process</td>
<td>To earn stakeholder trust by taking a holistic view of our supply chain and minimizing ESG risks in our business processes</td>
<td>CBV score</td>
<td>80% or more</td>
<td></td>
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<tr>
<td>Open Innovation</td>
<td>To shift from a self-sufficient approach to a new value creation process that creates value and makes our businesses more resilient</td>
<td>Contracted Joint R&amp;D ratio</td>
<td>80% or more</td>
<td></td>
</tr>
<tr>
<td>Diverse and Inclusive Workforce</td>
<td>To foster a corporate culture where diverse employees can demonstrate their potential and transform themselves and the company into one that is resilient to change</td>
<td>AHP &amp; APAC: 4.15</td>
<td>25%</td>
<td></td>
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- **1**: Percentage of customers who rated Ricoh as a digital services company.
- **2**: Corporate Human Rights Benchmark. The International Human Rights Initiative that established by institutional investors and NGOs, selects and evaluates approximately 250 global companies from five sections (agricultural products, apparel, extractions, ICT, and automotive). If not included in the assessment, the score will be calculated through a self-assessment including a third-party review by an external organization.
- **3**: Ratio of patent applications related to digital services contribution business to the total number of patent applications.
- **4**: Percentage of personnel trained with a track record based on Process D1 (from the organization to be trained is in each business unit).
- **5**: Based on Gallup Q12 Mean
Ricoh Industrie France: the European factory
Since 1996 committed to the achievement of the Ricoh’ environmental goals

Ricoh Industrie France: more than 25 years of circular economy-oriented activities for the benefit of the EMEA region


- Start repairing of PCB
- Start renewed PCU
- Launching remanufactured GreenLine MFP
- Start of material recovery program
- Launching 1st Ricoh automatized production line for cartridge
- Start Non-Ricoh Product European 3R centre
- GPP* toner bottles
- Reconditioning of commercial industrial printer

GPP* Green Public Procurement

Ricoh Industrie France: more than 25 years of circular economy-oriented activities for the benefit of the EMEA region
Ricoh Industrie France: the European factory
Example of our remanufactured Multi-Functional Printers “Ricoh GreenLine™”

Ricoh GreenLine™: our certified and labeled Multi-Functional Printer remanufactured solution

94,4% of parts by weight are reused

Local solution certified as “SERVICE FRANCE GARANTI”

Clean & profitable solution labeled by the “SOLAR IMPULSE FOUNDATION”

Source: https://solarimpulse.com/solutions-explorer/greenline-printing-solution
Ricoh Industrie France: the European factory

Example of our renewed Parts & Supplies

Renewed Parts & Supplies:
above 500 references collected across EMEA

- Up to 95% of raw material reused by weight
- Collection network via the Ricoh Operational Companies or Ricoh’s partners
Thank you for your attention
Feel free to contact me!

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