

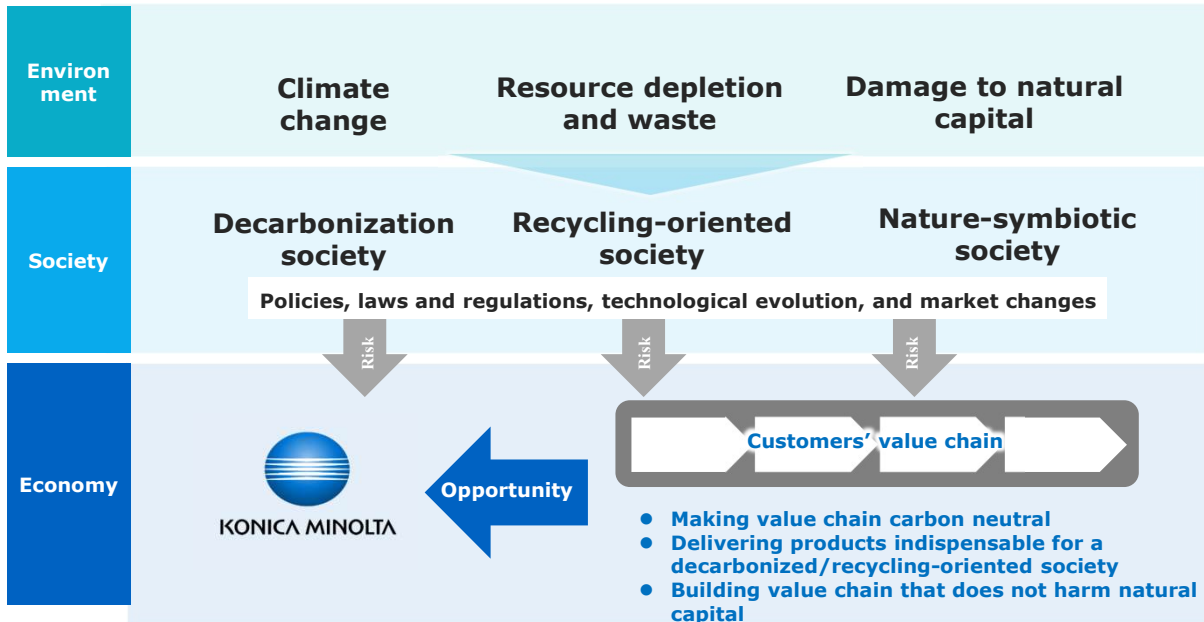
ENVIRONMENT

December 12, 2023
Masahiro Tokuchi
Senior Manager, Sustainability Group
Corporate Planning Division



Hello, everyone.
My name is Masahiro Tokuchi, and I am with the Sustainability Group of the Corporate Planning Division. Now, I will now explain about Konica Minolta's environmental management.

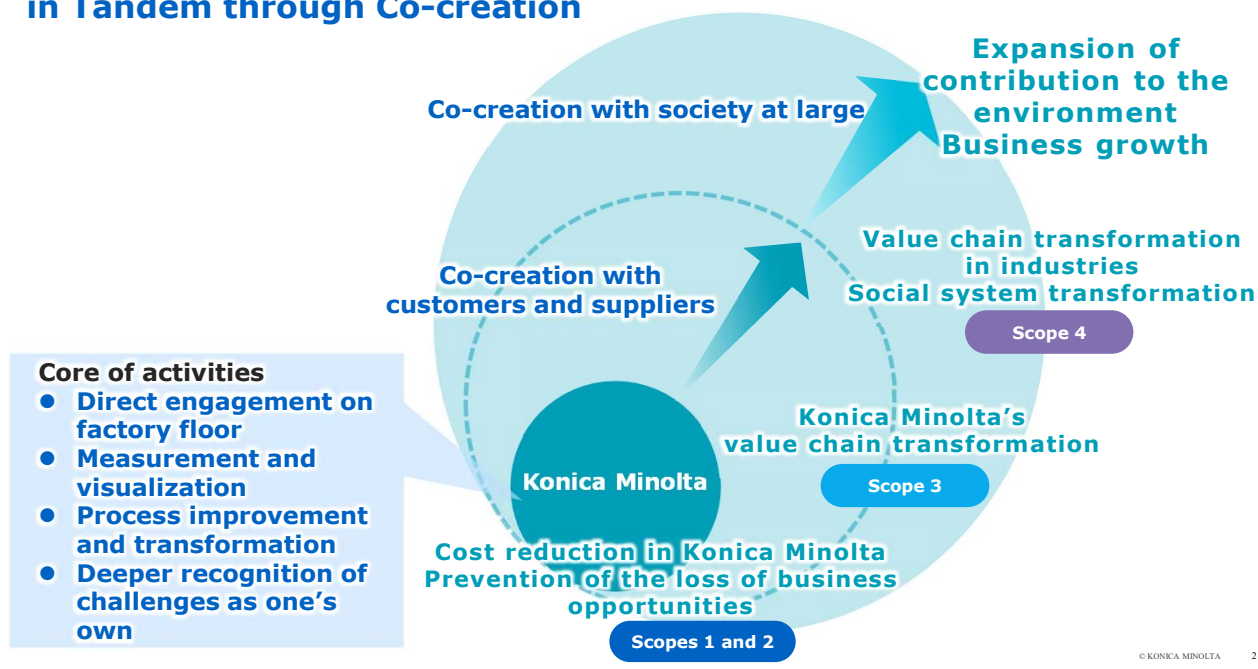
Opportunity from Changes in Society



As climate change and other global environmental issues become more apparent and serious, we are witnessing a major societal shift toward the creation of a decarbonized, recycling-oriented, nature-symbiotic society. Changes in society affect us, of course, but they also have a strong impact on our customers' supply chains.

For example, major automotive and electrical and electronics companies have set goals to achieve carbon neutrality in their supply chains and products, deepening engagement with supply chain partners. As such, we recognize that a great opportunity lies ahead if we can help these customers solve their environmental challenges throughout their supply chains.

Environmental Contribution and Business Growth in Tandem through Co-creation



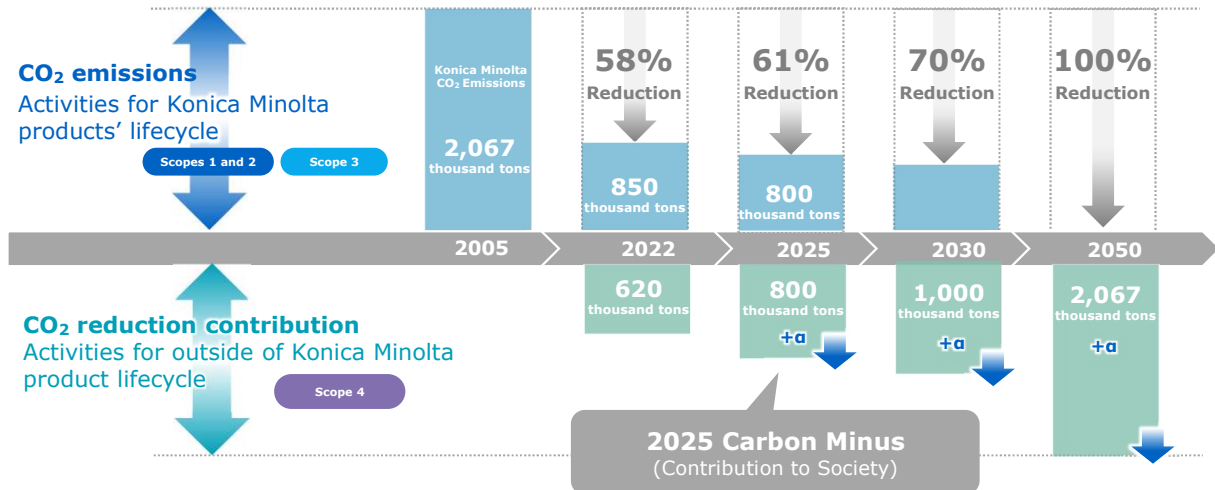
We have a variety of assets as a result of our efforts to reduce the environmental impact in the Company. As shown in the lower left of this slide, we are enhancing direct engagement on the factory floor, thoroughly measuring and visualizing, or improving and transforming our processes. And above all, we deeply recognize the challenges as our own efforts to strike a balance between environmental value and business value.

Based on these core activities, we will first change our value chain through co-creation with suppliers and customers, and then through further co-creation with customers and society at large, we will make an environmental contribution that we could never have made alone by transforming industrial value chains and even social systems, leading to business growth for the Company.

This is our basic approach to environmental management.

Climate Change: Carbon Minus in 2025

- The progress is steady toward the goals.
- While the main reduction contribution currently comes from production print, further reduction contribution is expected from Industry segment in FY2025 and beyond.



We are developing this concept as our vision and goal.

The chart above the horizontal axis of the year shows the CO₂ emissions over the life cycle of Konica Minolta products, i.e., our targets, including those in Scopes 1, 2, and the main Scope 3, for which we consider ourselves responsible.

We regard this as a goal that primarily responds to societal demands.

Since as early as 2009, we have set our long-term vision for 2050, taking early steps to visualize and reduce Scope 1, 2, and 3 emissions.

We achieved a 58% reduction by fiscal 2022. In simple terms, this is all because of the results of a 3.5% reduction per year, which we have been doing for the past 17 years.

By 2050, we will further accelerate our efforts to achieve net-zero emissions.

In addition, the chart below the horizontal axis of the year represents CO₂ reduction contribution through working with communities and customers.

We are aware that this goal represents an opportunity for the Company.



By 2025, we will generate a reduction contribution that exceeds the product life-cycle CO₂ emissions for which we are responsible, as shown in the chart above, that is a reduction contribution of 800,000 tons.

We have set a conceptual target of Carbon Minus, which means that our existence will enable society at large to reduce CO₂ emissions by more than our own CO₂ emissions.

To achieve Carbon Minus, we aim to make further reductions in the strengthening areas, especially in the industry business.

Besides our decarbonization vision, as shown in the Appendix, we have also set out a target for resource recycling under the same concept. Today, let me continue to focus on climate change.

Green Factory certification standards

	Chemical plant sites 	Assembly sites 
Energy conservation	3% reduction annually	2% reduction annually
Ratio of renewable energy to purchased electricity	20% to 100% depending on site characteristics	
Reduction of waste discharge (resource reduction)	2% reduction annually	

Certification achievement by all global production sites

- The standards are revised every Medium-term Business Plan period to raise the bar. The activities are continuously implemented.
- During the Medium-term Business Plan period up to FY2022, all global production sites were certified.
- Activities started in FY2023 to meet the new standards.

Now, let's move on to specific activities for Scopes 1 and 2 among Scopes 1, 2, and 3, as shown in the top part of the chart I mentioned earlier.

Since the management integration, we have continued the Green Factory activities, in which all of the global production factories set high-level targets for energy conservation and resource reduction.

We set higher targets for each Medium-term Business Plan period. We maintain a system in which each site works toward these targets and is certified for achieving them. Through such ongoing activities, we have worked to raise the level of our efforts and ensure that the activities are firmly established.

Results of Green Factory Activities

Scopes 1 and 2



150
YEARS

Accumulation of steady efforts in daily actions at the core of activities



- Direct engagement on factory floor
- Measurement and visualization
- Process improvement and transformation
- Deeper recognition of challenges as one's own



Results of activities

Environmental
Impact
Reduction

Business risk
reduction

Cost
Reduction

Cost reduction by
conserving
energy and resources

Sales
Opportunity

Response to environ-
mental assessment in bids

Human
Capital

Corporate culture that supports
self-reliant task setting and
problem solving

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In the activities, our basic approach is to make sure to directly engage on the factory floor, thoroughly conduct measurement and visualization, and drive process improvement and transformation, which serves as the origin and core of the Company.

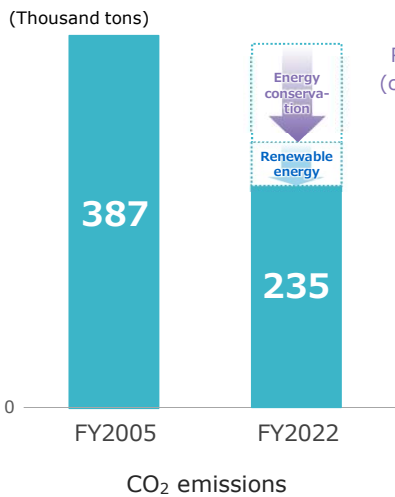
These efforts have resulted not only in a reduction in environmental impact and cost, but also in the acquisition of sales opportunities and the development of human capital, such as on-site oriented approach, visualization, and process innovation.

Once again, this is the origin and core of the Company.

Environmental Impact Reduction and Economic Benefits from Green Factory Activities

Scopes 1 and 2

Reduction effect during production



Reduction (cumulative)
118
27

Cost reduction
¥3.38 billion

All of overseas MFP production sites achieved 100% renewable energy. (March 2023)



As shown here, the Green Factory activities achieved a reduction of 118,000 tons of CO₂ emissions during production by saving energy and 3.38 billion yen in costs, as a result of reducing both environmental impact and costs.

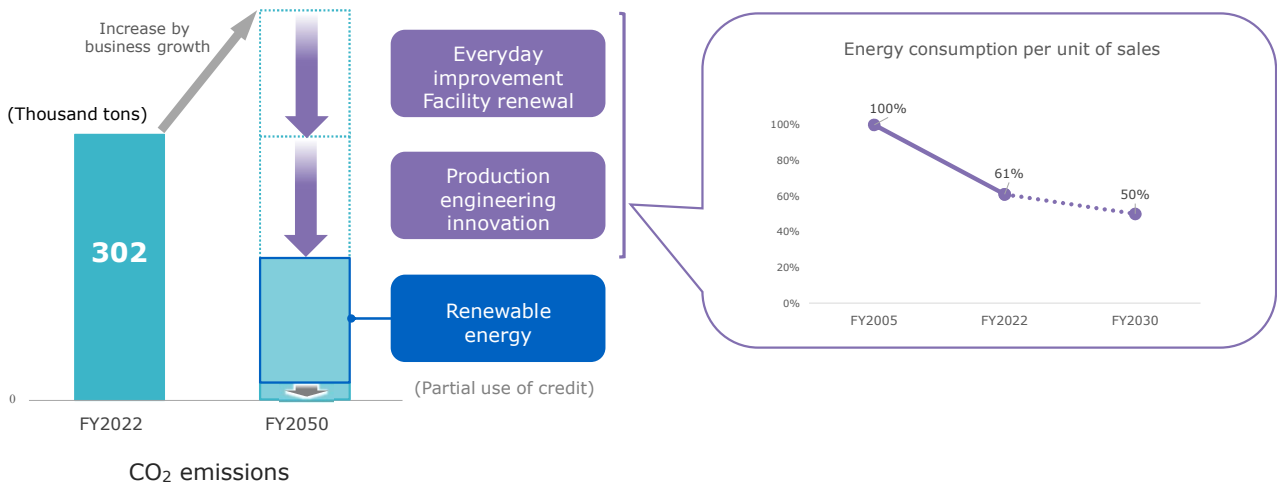
In the current Medium-term Business Plan, these activities are ongoing at all sites, with the goal of cutting CO₂ emissions by 40,000 tons and costs by about 800 million yen.

In addition to saving energy, we have continued to achieve 100% renewable energy at our factories. At the end of fiscal 2022, all final production sites for MFPs have achieved 100% renewable energy. All Konica Minolta MFPs are being manufactured in final production factories that use 100% renewable energy.

Net Zero by 2050

Scopes 1 and 2

Green Factory activities will **improve energy efficiency, doubling by 2030**.
Renewable energy-derived electricity ratio is aimed at 100% by 2050.



To achieve net zero, we will also strive not only to convert to renewable energy, but also to steadily advance energy conservation. The energy consumption per unit of sales improved by 39% by fiscal 2022. Our continued efforts will lead to a 50% reduction by 2030, or more than doubling our energy efficiency. Then we will convert the remaining energy to renewable energy sources that are best suited to each site and region. Our goal is to achieve 50% renewable energy by 2030 and 100% by 2050, and net zero by 2050.

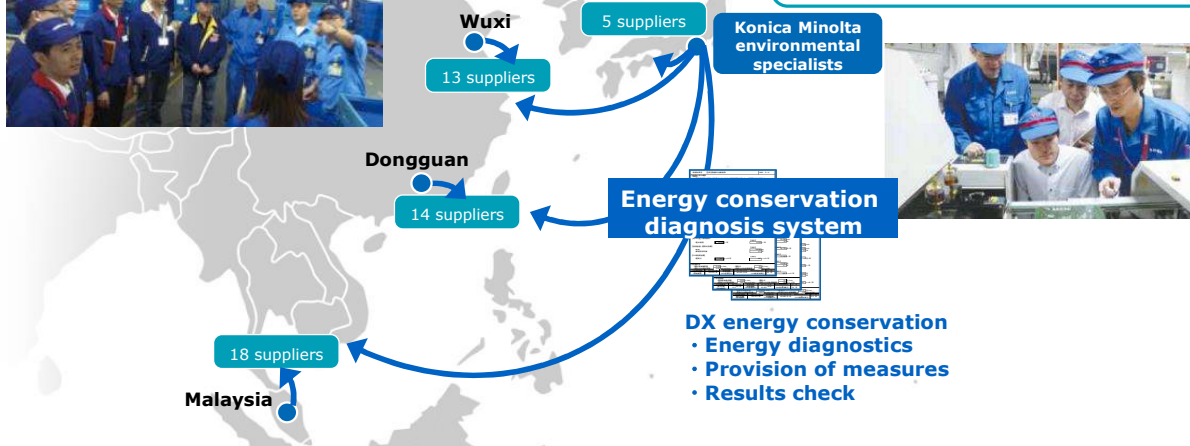
Expansion of Environmental Know-how to Suppliers

Scope 3

- Provision of environmental experience and know-how to suppliers
- Reduction of environmental impact and costs at the same time



- FY2022 activities (cumulative)
- CO₂ savings: 21,000 tons
 - Effective use of resources: 3,000 tons
 - ↓
 - Monetary value reduction effect: ¥660 million



Since 2013, we have worked to expand the experience and know-how we have gained from our Scope 1 and 2 efforts to suppliers.

In order to encourage our suppliers to achieve the same level of goals as our ongoing Green Factory activities, and to ensure that these activities are firmly established, we are implementing a scheme in which we will work with suppliers for three years.

In expanding our expertise, we now have a system in place that can collaborate with about 10 suppliers in a year through the in-house development and operation of a system that automates energy saving diagnostics.

To date, 21,000 tons of CO₂ emissions and 660 million yen in monetary costs have been reduced through collaboration with about 50 suppliers.

In recent years, CO₂ reduction in the supply chain has increasingly become an issue, and through our many years of experience and conversion to DX, we have taken early steps to work with suppliers, aiming to further advance these efforts.

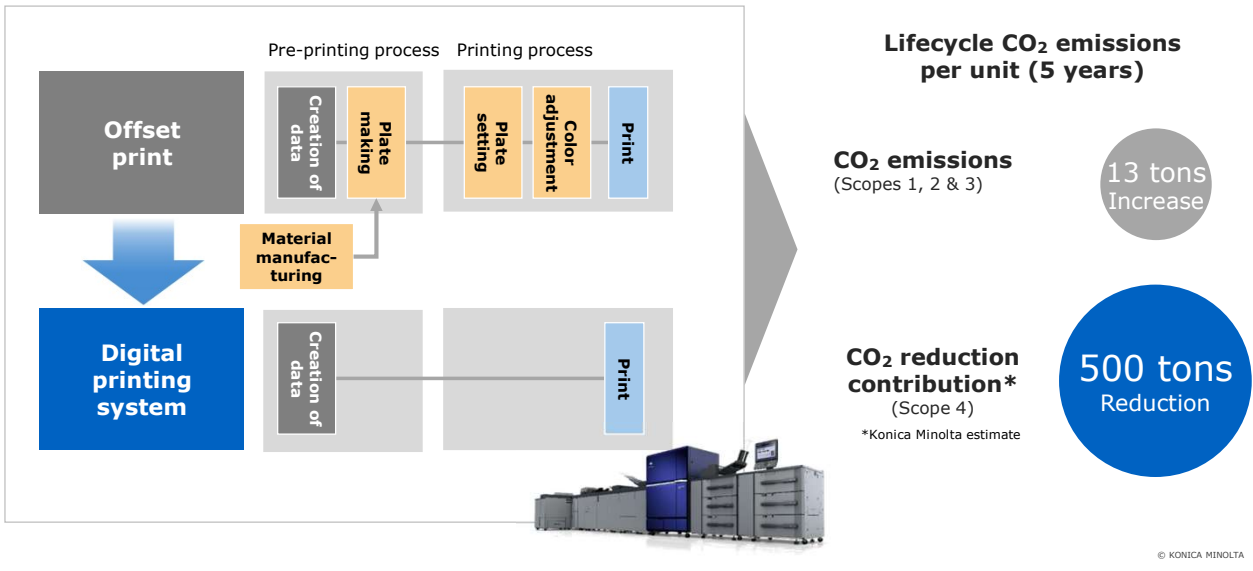
Contribution to Environmental Impact Reduction in Production Print

Scope 4



150 YEARS

Contribution to CO₂ emissions reduction of approximately 500 tons per unit by transforming customer's supply chain



In addition, the process reform and improvement activities implemented at customer sites will contribute to Scope 4 reductions.

This is the digital printing system that is currently deployed in the professional print business. The amount of CO₂ emissions, from the manufacturing and distribution of products, as well as from the energy consumed by customers when using products, increases by 13 tons per unit. We take it as our responsibility to reduce this 13-ton amount.

Meanwhile, by improving the processes, 500 tons of reduction can be achieved at customers' sites. This means that our reduction contribution can be about 40 times the increase from products. By steadily accumulating such reduction contributions and creating value for customers, we will increase the amount of reduction contributions, aiming to achieve Carbon Minus.

Visualization of gas by imaging IoT to prevent leakage of gases with higher global warming potential

Methane emissions in oil and gas industry

17,000 thousand tons in North America (approximately 20% of global emissions)
= 420,000 thousand tons of CO₂

Reference: IEA Methane Tracker 2023
Calculation by Konica Minolta

Prevention of gas leakage and maintenance



Immediate measurement of gas leakage location and flow rate

60
thousand tons
Reduction
contribution to
methane emissions*
(in 2027)

*Konica Minolta estimate

By leveraging our imaging IoT technology to visualize methane gas leaks in the oil and gas industry, customers can then take steps to prevent leaks, thereby curbing methane gas emissions, which have a high global warming potential of up to 25 times that of CO₂ emissions.

Targeting the North American market, which accounts for an estimated 20% of global methane emissions from the oil and gas industry and is highly regulated to prevent leaks, the application of our technology has the potential to reduce methane emissions by 60,000 tons, according to our estimate. We will continue these efforts in the current Medium-term Business Plan.

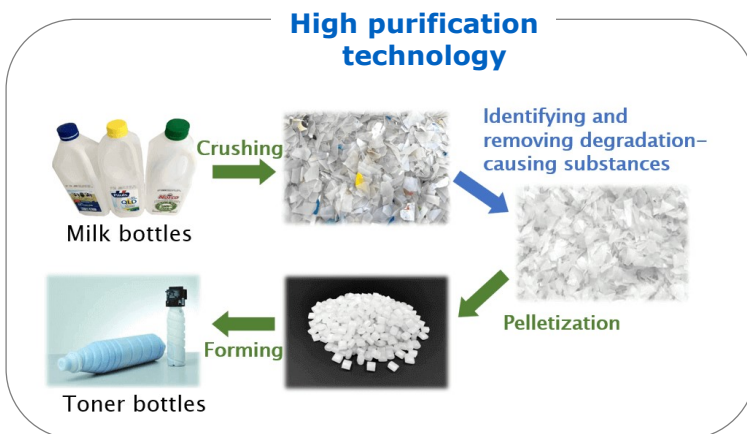
Recycling Technology that Expands Potential of Waste Plastic

Scope 4



150
YEARS

- The annual utilization of approximately 5,000 tons of waste plastic as resource recycling reduced CO₂ emissions in Scope 3 by around 7,000 tons.* (FY2022 results) *Konica Minolta estimate
- In Scope 4, dissemination of the technology in the larger society is aimed.



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To address the emergence of a decarbonized, recycling-oriented society, we harness related technologies for plastic recycling.

High purification technology, which extensively eliminates foreign substances, and material-properties upgrading technology, which dramatically improves strength and flame resistance, have been applied primarily to our MFPs and other products. As a result, these technologies have reduced resources by about 5,000 tons and the CO₂ equivalent by about 7,000 tons in fiscal 2022.

The next step for us is to deploy these technologies on a broader scale, not only to the Company but also to our customers and communities, in order to make the 7,000 tons a larger impact, or to accumulate the amount that contributes to Scope 4 reductions.

Hyperspectral imaging technologies

capture the spectrum invisible to humans and enable high-precision identification and inspection.

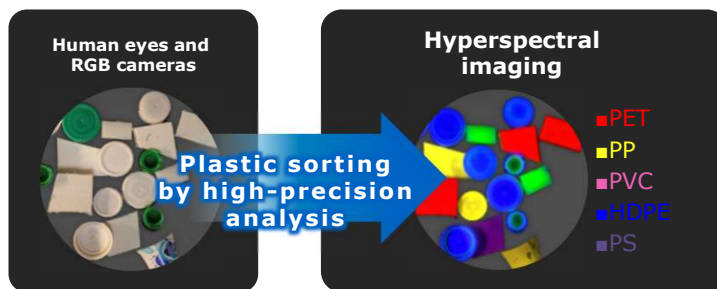
Escalation of environmental problems

- Serious waste problem
- Effective use of resources

Labor shortage in recycling industry

- More sophisticated recycling
- Work environment improvement

- **Effective use of resources** through automatic garbage sorting in the recycling industry
- **Application for automation and labor saving** for ingredient analysis and foreign substance testing of foods and formulations



On another recycling-related topic, we also have a sensing technology called "Hyperspectral Imaging." This technology enables us to identify chemical substances in a non-destructive manner. Black resin is considered to be very difficult to identify in the recycling of plastics. By applying the technology, we can ensure accurate sorting even for black resins. In fact, experiments conducted at a home appliance recycling plant have confirmed that black resin can be properly identified.

Through the integration and evolution of the recycling technologies mentioned earlier and these advanced sorting and visualization technologies, we have the potential to significantly change the social system toward a decarbonized and recycling-oriented society. We hope to develop our contributions to the next step, and to grow the seeds for the future business.

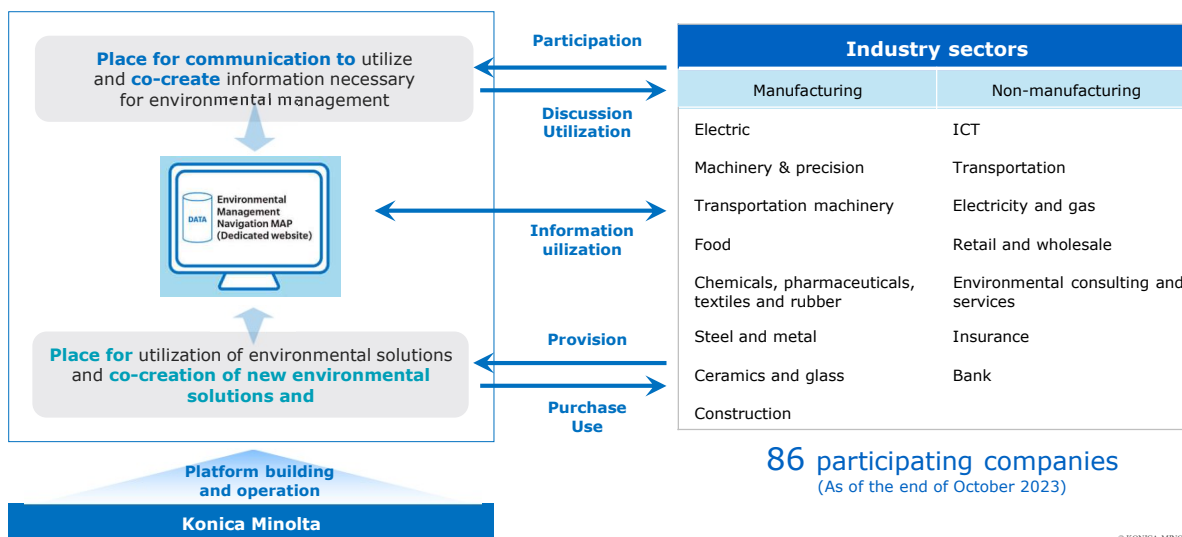
Environmental Digital Platform: Co-creation of Environmental Value across Different Industries

Scope 4



150 YEARS

Sharing and accumulation of environmental knowledge and know-how of participating companies with the aim to improve environmental management by co-creation of new value



Besides contributions through our business, we have also built and operate an environmental digital platform to create value through co-creation among different industries.

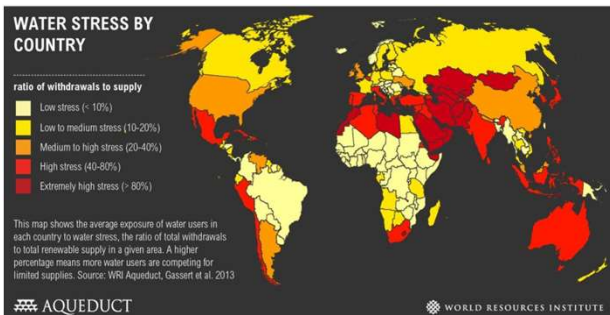
The platform was launched in 2020 with 15 companies, and as of the end of October, 86 companies from a variety of industries have joined the platform. For more information on participating companies, please see the Appendix.

We currently operate the program with a focus on utilizing information necessary for environmental management. Among the results we have received from participating companies are that they were able to comply with requirements of the Task Force on Climate Change-related Financial Disclosure without the need for consultation, that they were able to introduce internal carbon pricing, and that they have made progress in introducing renewable energy overseas.

Moving forward, we intend to advance this platform to one that increases value by integrating resources of many companies, not just those of a single company, such as environmental technology and solutions to various issues, as well as the utilization of information.

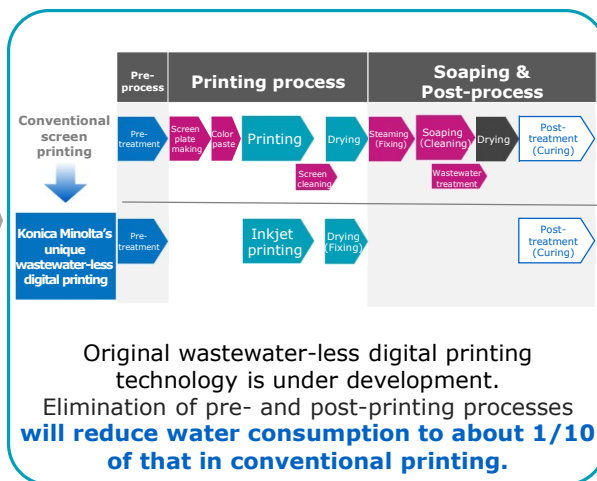
Contribution to Water Consumption Reduction in Textile Printing (Industrial Printing)

Water Stress World Map*



Major markets are highly water stressed.
(India, China, Turkey, Italy and Japan)

*Source: World Resources Institute



This is the final topic. In September of this year, the framework for the Task Force on Nature-related Financial Disclosures was formally announced.

We have also started to identify natural capital risks and opportunities. We are aware that among natural capital, water risks can bring opportunities for the Company.

India, Turkey, and Italy, as well as other countries, which are major markets for our inkjet textile printers (machines that color fabrics), are facing very high water stress, as indicated by the red color on the map, according to the analysis.

In response, we are now developing an original wastewater-less digital printing technology. We hope to bring this technology to market as soon as possible, as it can be applied to the societal demands expected in the future in regions prone to high water stress.

Economic Value Expansion with Green Products

Scope 3

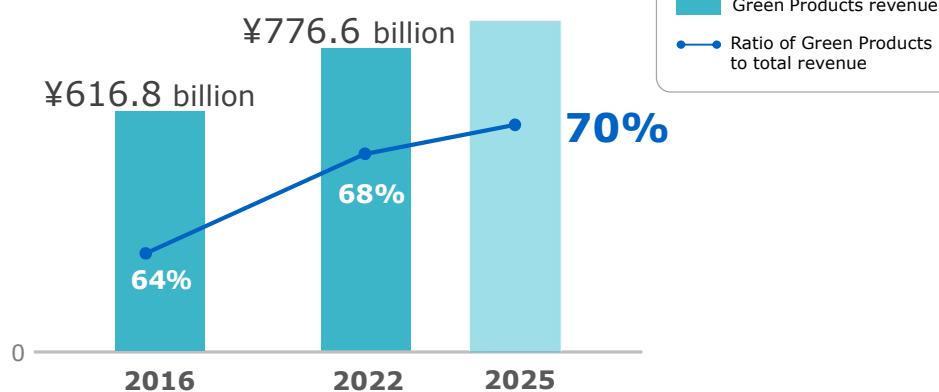
Scope 4



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YEARS

Ratio of revenue of Green Products (products that contribute to the environmental impact reduction) to the total revenue:

Aiming for **70% or higher** in 2025



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By fiscal 2025 of the current Medium-term Business Plan, we aim to increase the ratio of revenue from products that contribute to the environmental impact reduction to more than 70%.

Specifically, we will focus on the CO₂ reduction contribution of the strengthening businesses, especially in the industry business.

As I mentioned on the opening slides, we will solve the environmental challenges in various aspects faced by each industry and customer, primarily through Konica Minolta's range of technologies and solutions. Doing so will lead to the growth of our business.

Thank you for your attention.



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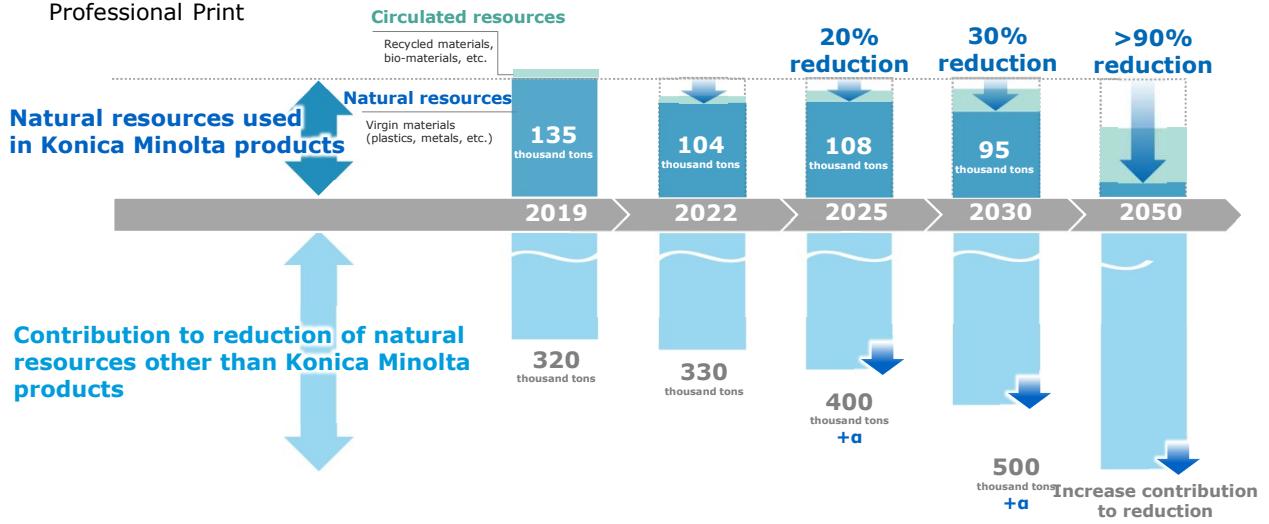
YEARS

Appendix



Effective Use of Limited Resources: Toward zero use of global resources by 2050

- Steady progress toward the goals, with higher reduction goals by 2025
- In FY2025 and beyond, expectation of further reduction in the Industry field on top of reduction in Professional Print



Companies Participating in Environmental Digital Platform



150
YEARS

Industry sector		Participating companies: 86 companies as of the end of October 2023
Manufacturing	Electric	Azbil Corporation, Konica Minolta, Inc., TAMURA CORPORATION, PIONEER CORPORATION, Panasonic Corporation, Foster Electric Company, Ltd., FUJITSU GENERAL LTD., Mitsubishi Electric Corporation, YASKAWA Electric Corporation, YOKOGAWA Electric Corporation, Lenovo Japan LLC, ROHM Co., Ltd. and four other companies
	Machinery & precision	EBARA CORPORATION, OSG Corporation, ORIENTAL MOTOR CO., LTD., Komatsu Ltd., SATO Holdings Corporation, Citizen Watch Co., Ltd., SHIMANO INC., Daikin Industries, Ltd., Daifuku Co., Ltd., TADANO LTD., TVE Co., Ltd., Terumo Corporation, Nakanishi Metal Works Co., Ltd., NSK Ltd., BROTHER INDUSTRIES, LTD., HOYA CORPORATION, MISUMI Group Inc., Mitsutoyo Corporation and four other companies
	Transportation machinery	AISIN CORPORATION, TOYOTA BOSHOKU CORPORATION, Hino Motors, Ltd. and one other company
	Food	Nichirei Corporation and one other company
	Chemistry, pharmaceuticals, textiles and rubber	Aika Kogyo Company, Ltd., Otsuka Pharmaceutical Factory, Inc., Kawami Sangyo Co., Ltd., GUNZE LTD., Sumitomo Riko Company Ltd., Daicel Corporation, Mitsubishi Chemical Group Corporation, Lion Corporation and three other companies
	Steel and metal	YKK Corporation, YKK AP Inc., LIXIL Corporation
	Ceramics and glass	AGC Inc., NICHIAS Corporation and one other company
	Construction	Daiwa House Industry Co., Ltd.
Non-Manufacturing	ICT	Aidemy Inc., Asuene Inc., INFOCOM CORPORATION, SCSK Corporation, NS Solutions Corporation, medidas
	Transportation	YAMATO HOLDINGS CO., LTD.
	Electricity and gas	Japan Wind Development Co., Ltd.
	Retail and wholesale	Astomos Energy Corporation, Sangetsu Corporation
	Environmental consulting and services	ECOLOGICA Co., Ltd., ENERES Co., Ltd., Enel X Advisory Service Japan LLC, CARBON FREE CONOSULTING CORPORATION, Creattura Co., Ltd., Geosphere Environmental Technology Corporation, DIGITAL GRID Corporation, TOSHIBA ENVIRONMENTAL SOLUTIONS CORPORATION, Xels Japan, BYWILL Inc., PERSOL CROSS TECHNOLOGY CO., LTD., PwC Sustainability LLC, Sumitomo Mitsui Finance and Leasing Company, Ltd.
	Insurance	Aflac Life Insurance Japan Ltd.
	Bank	Resona Holdings, Inc.

*Companies that provide environmental solutions are in green.

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Glossary

- **Scope 1**
Greenhouse gases emitted directly by companies and organizations through combustion of fuels, in-house power generation, etc.
- **Scope 2**
Greenhouse gases that are indirectly emitted through the use of electricity, heat, and steam supplied by entities other than companies and their organizations.
- **Scope 3**
Greenhouse gases other than Scopes 1 and 2 that are emitted indirectly through the supply chain associated with the companies' activities.
- **Scope 4 (Reduction contribution)**
Greenhouse gases that are not covered by Scopes 1, 2, or 3 and that are reduced by customers or their supply chain through the companies' own solutions or activities.
- **Green Factory Activities**
Konica Minolta's original efforts to promote energy conservation, effective use of resources, and introduction of renewable energy at its own factories.
- **Green Products**
Products that meet the standards established by Konica Minolta's own Green Products Certification System, have high environmental performance, or contribute to solving environmental issues for customers and others.
- **Carbon Minus**
Status in which Scope 4 exceeds the company's lifecycle CO₂ emissions (Scopes 1, 2, and 3).
- **Net zero**
Status in which greenhouse gas emissions are substantially zero.
- **Upgrade recycling**
Recycling that enhances the value of materials used in the market by adding functions such as higher strength and flame retardancy.
- **HSI (Hyperspectral imaging)**
A method for dividing a wide range of wave lengths into a large number in taking images. This technology enables sorting of plastics which cannot be distinguished by human eyes and RGB cameras.
- **Environmental Digital Platform**
An ecosystem of environmental management operated by Konica Minolta. The platform aims to reduce the environmental impact of the industries and society as a whole by utilizing each other's outstanding environmental technologies and know-how among companies in various industries.