



Konica Minolta Environmental Management

March 11, 2021

Takenori Takahashi,
Group executive,
General Manager, Corporate Sustainability Operations

Social
demand

SUSTAINABLE DEVELOPMENT GOALS

Social issues
(Business
opportunities)



Innovation
(Solutions)



Business growth,
business creation

Grasp social issues as
business opportunities

Solve issues by innovation
(Digital innovation)

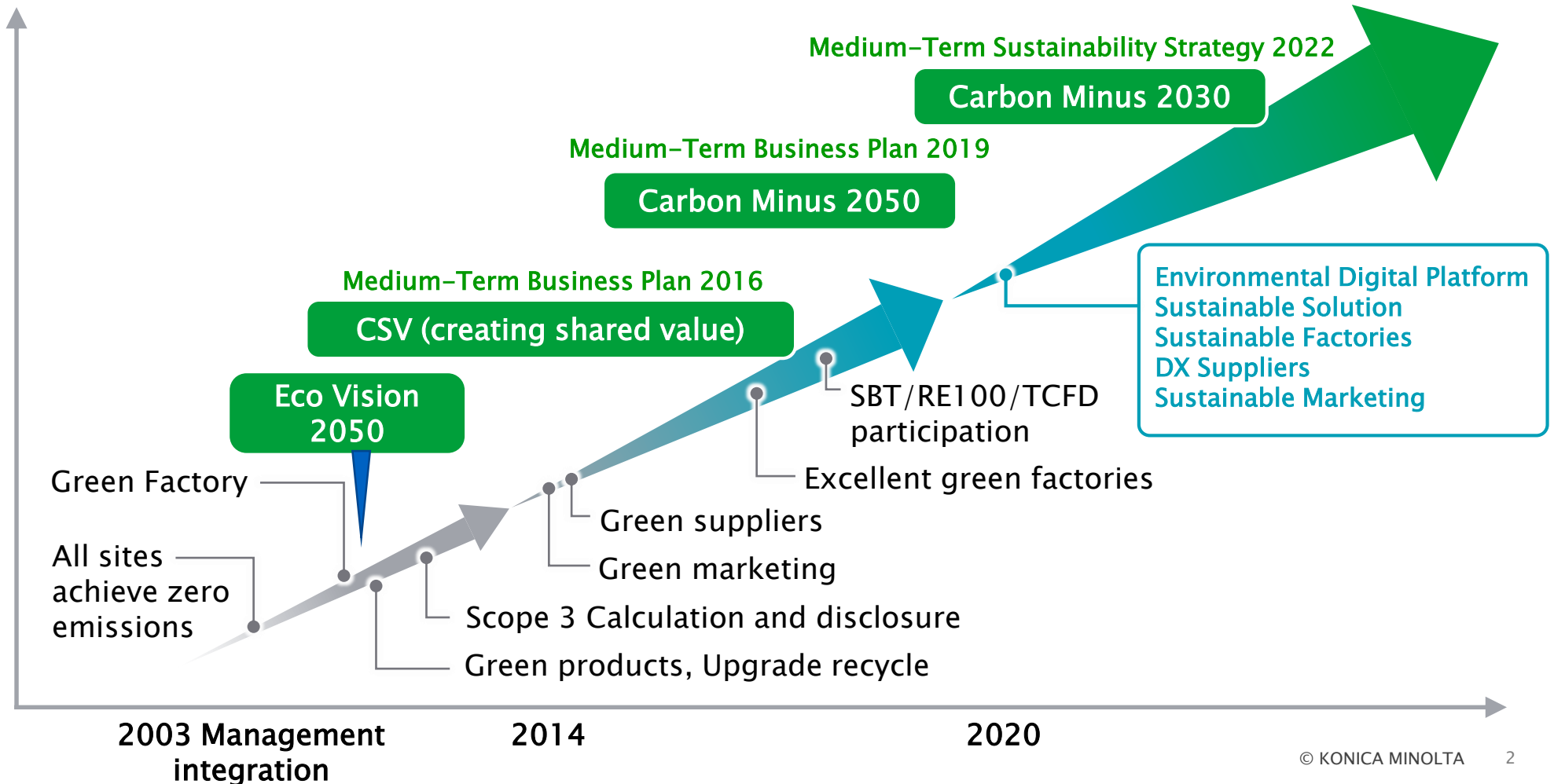
Basic policy

Realize solutions to social and environmental issues by innovation (DX)

- (1) Define new five material issues (important issues) and resolve social issues by DX
- (2) GX Green Transformation:
Driving drastic CO₂ emissions reduction with DX, to achieve “Carbon Minus” status by 2030 instead of 2050

GX Green Transformation

Business plan: **TRANSFORM** → **SHINKA** → **DX**



Policy of Environmental Management in the Konica Minolta Style

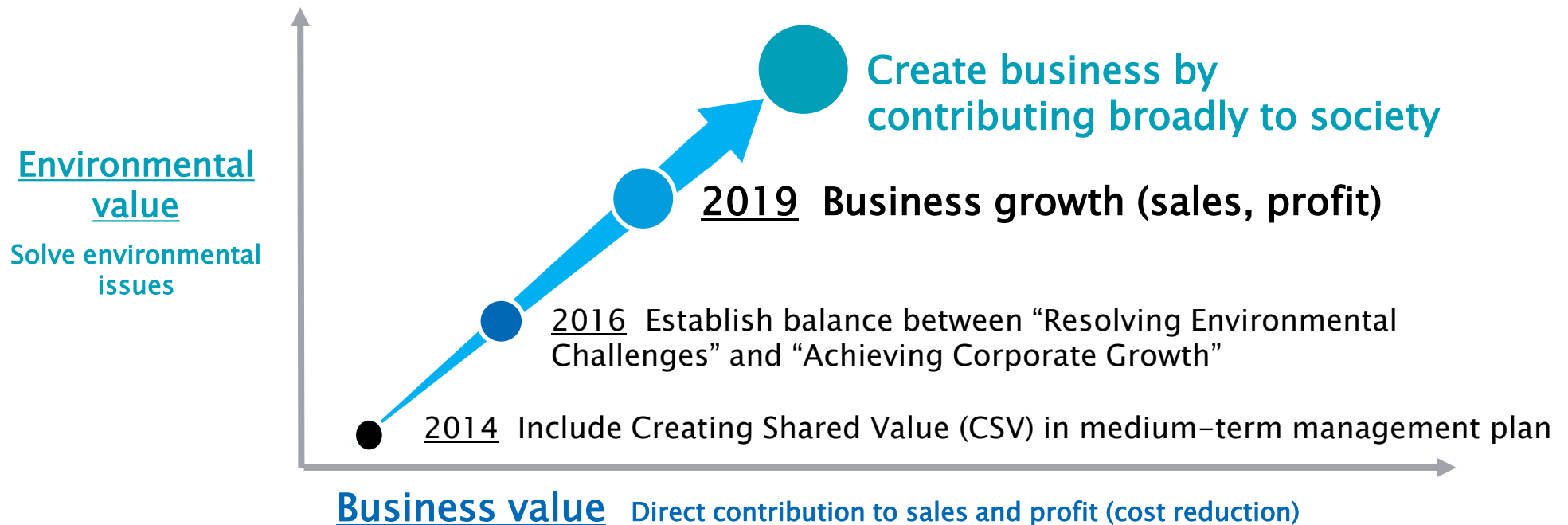
Management vision

- A global company that is vital to society, bringing vision to reality
- A robust and innovative company, continually evolving and contributing to the sustainable growth of society and individuals



Environment

- Earning recognition as a company vital to the world by contributing to environmental development
- Leveraging environmental initiatives to grow the company
- Sharing the joy of caring for the environment with all stakeholders

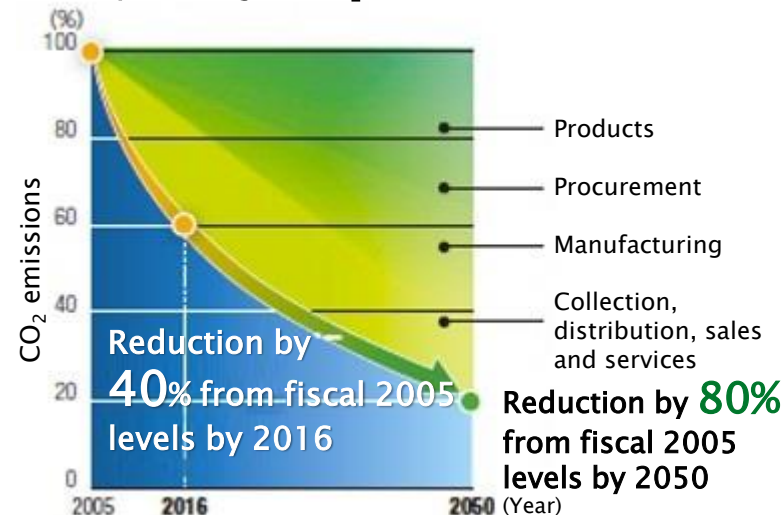


Establishment of long-term environmental vision looking ahead to 2050

Eco Vision 2050

- ① Reduce CO₂ emissions throughout the product lifecycle by 80% by 2050, compared to fiscal 2005 levels.
- ② Promote recycling and effective use of Earth's limited resources.
- ③ Work to promote restoration and preservation of biodiversity.

Conceptual image of CO₂ emissions reduction

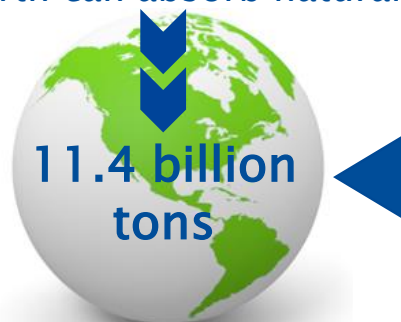


<Why reduce by 80%?>

Amount of greenhouse gases the Earth can absorb naturally

2004

Greenhouse gas emissions: **49.0 billion tons**
World population: **6.4 billion**



2050

Greenhouse gas emissions: **11.4 billion tons**
World population: **9.2 billion (UN projection)**

Necessity to limit emissions to amount absorbed naturally

7.66 tons/person

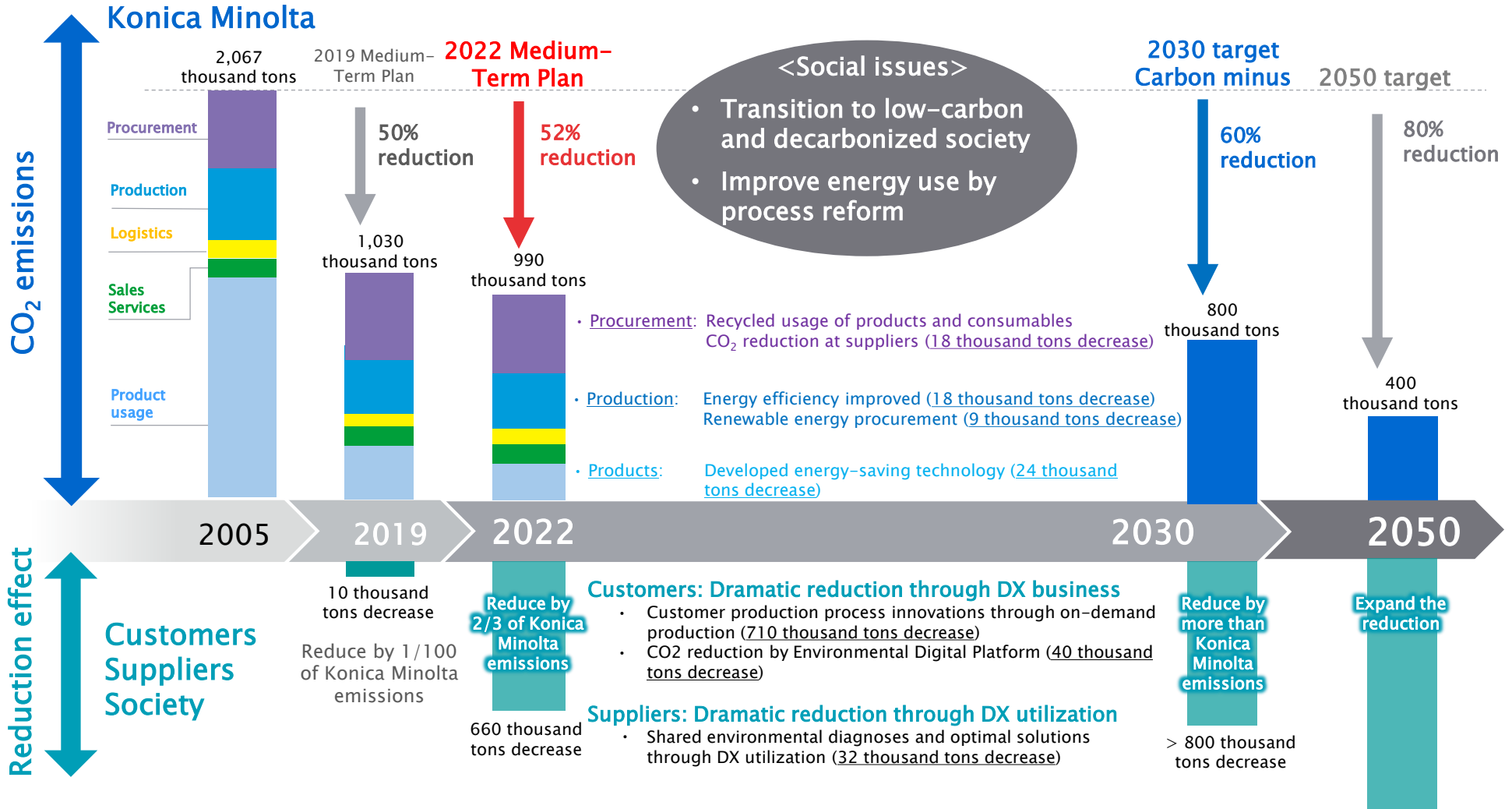
80% decrease

1.24 tons/person

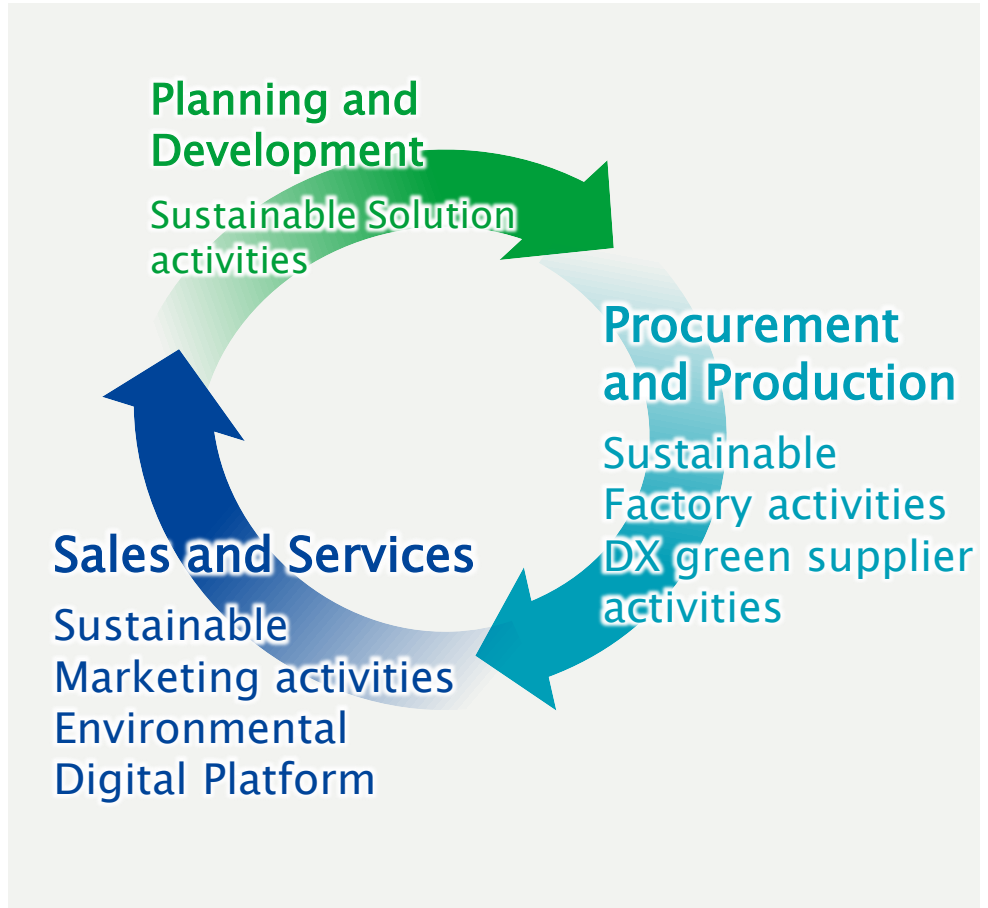
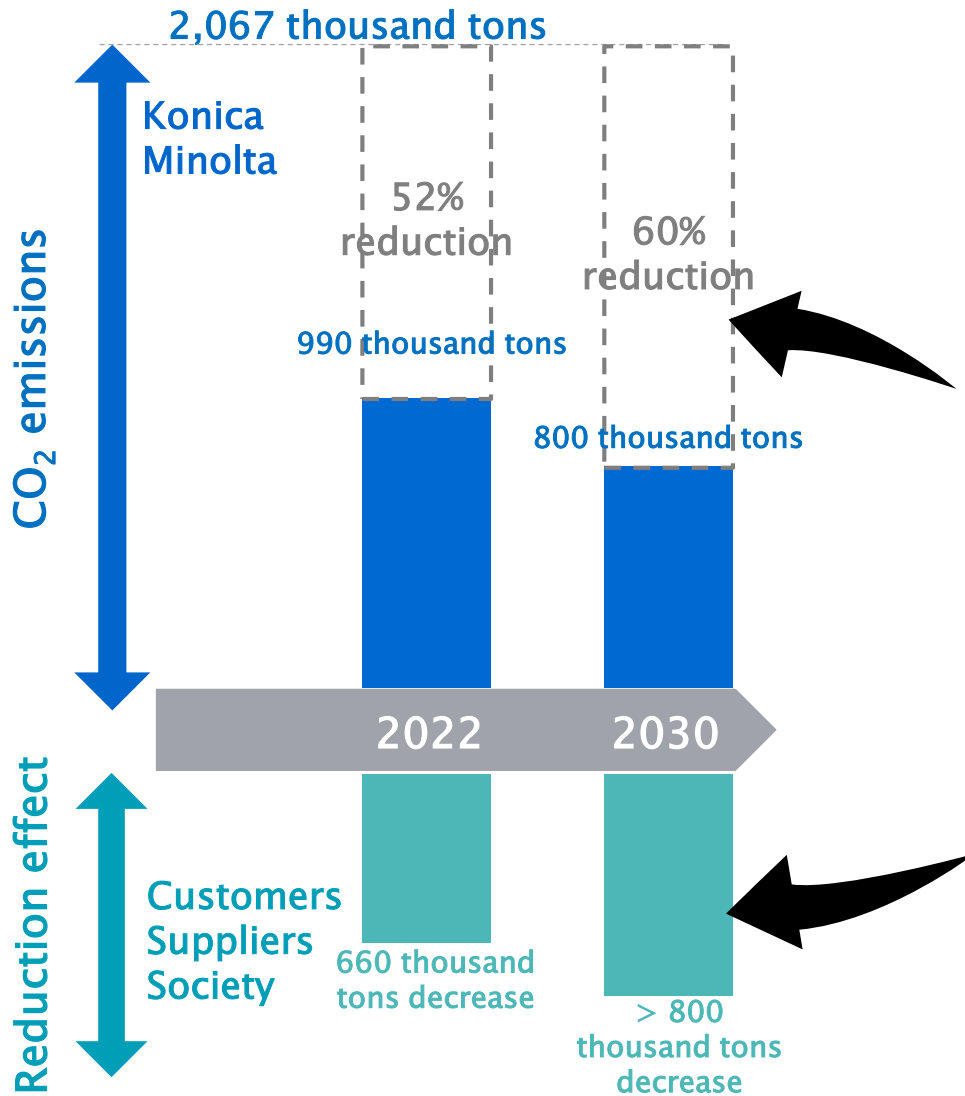
Moving the Carbon Minus Goalpost up to 2030

Carbon minus:

CO₂ emissions from Konica Minolta business activities < Effect of CO₂ reduction by customers, suppliers, and society



Approach to Carbon Minus



Sustainable Green Products: Activities Continued from the past



bizhub C360i/C300i/C250i

- Low power consumption (TEC value, power sleep mode)
- Use of flame-resistant recycled PC/PET



AeroDR fine

- Lightweight
- Reduced X-ray exposure



TAC film

- Thin film for increasing viewing angle



AccurioJet KM-1

- Printing plate not required (waste reduction)
- Reduce printing process man-hours, raise productivity
- Efficient resource utilization



CM-26dG

- Contribute to increased customer productivity and yield

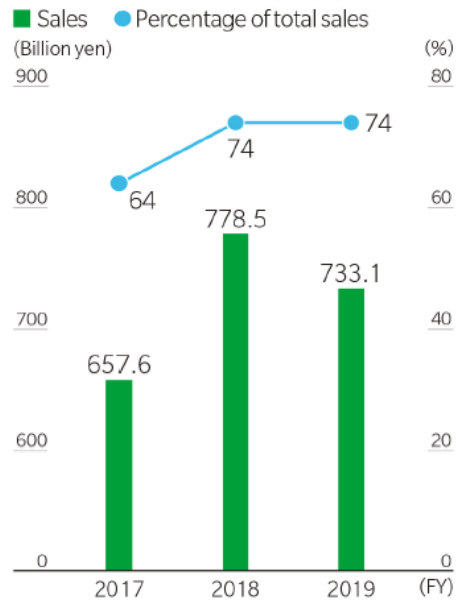


Infinium Σ

- Low power consumption

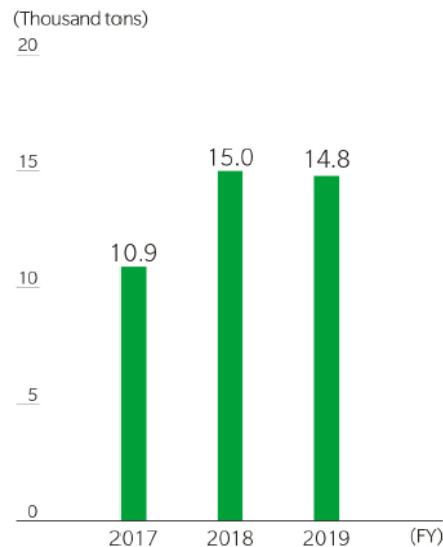
Business value (sales)

Sustainable Green Product Sales

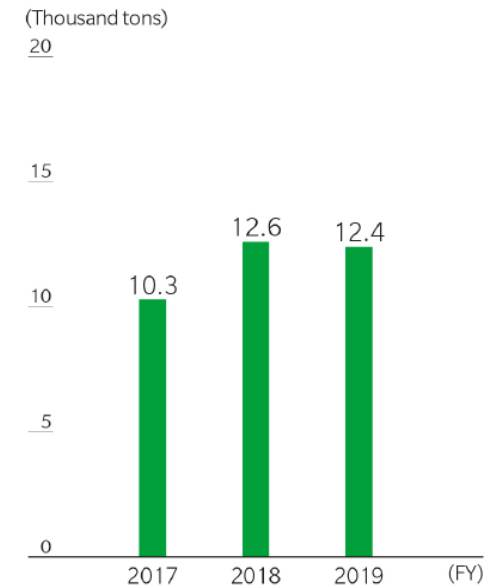


Environmental value (CO₂ reduction, effective resource utilization)

CO₂ Emissions Reduction Effect During Product Use



Effective Resource Utilization



Change from "products" to "solutions"

Example of certification



AccurioPress C14000 (SS plus)
 Printing process labor time per day reduced by 75% relative to competition
 Contribute to creation of time for work



Improving fulfillment in work and corporate dynamism

Environmental issues



Social issues



Certification system

Certification standards

Products and solutions that provide environmental and social value as defined in medium-term sustainability plans are certified in the following three levels:

Sustainable Solution Prime (SS prime)

Sustainable Solution Plus (SS plus)

Sustainable Solution (SS)

Certification level	Certification standards
Sustainable Solution Prime (SS prime)	<ul style="list-style-type: none"> Solutions to social issues that conventional products cannot realize Technology only Konica Minolta can provide Business contribution
Sustainable Solution Plus (SS plus)	<ul style="list-style-type: none"> Solutions that show ways of contributing to resolution of social issues at the top level or for the first time in the industry by comparison with comparable segments in competing companies
Sustainable Solution (SS)	<ul style="list-style-type: none"> Solutions that show ways of contributing to resolution of social issues at a level equivalent to the industry top (within top 30%) by comparison with comparable segments in competing companies Where not comparable, solutions that can be expected to contribute 1% or more of long-term vision defined in Sustainability Plan 2030

Green Factory: Activities Continued from the past

- Sales opportunities** Customers require environmental compliance when taking bids for product procurement
- Cost reduction** Resolving environmental issues corresponding with cost reduction
- Business risk** Environmental laws and regulations being strengthened
- Human resources** Corporate culture in which employees can act autonomously to define and resolve issues

Building excellent company

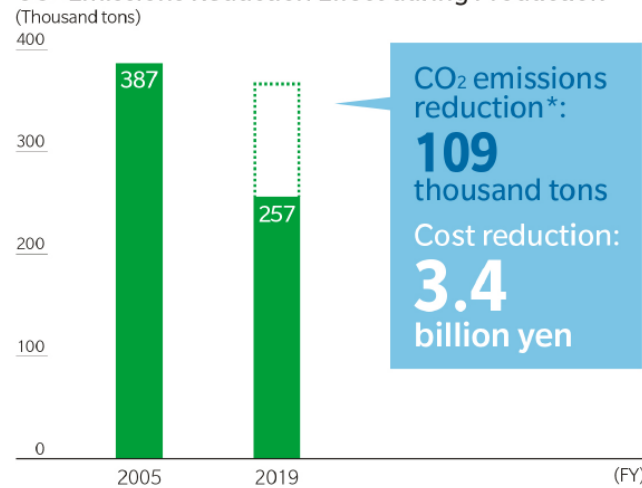


green factory

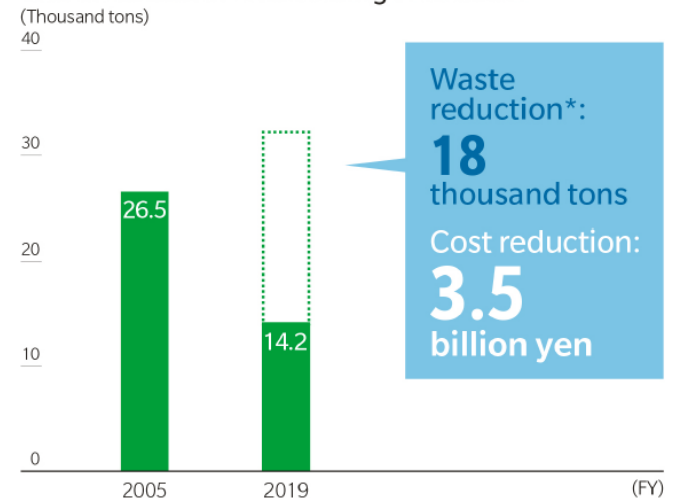


Green Factory Certification System

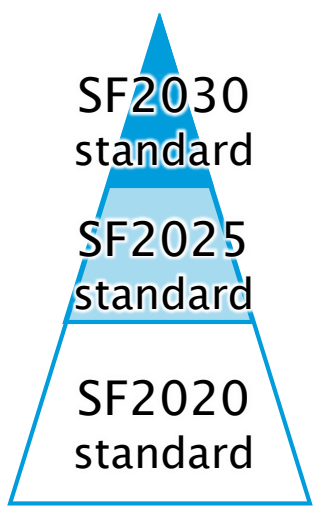


CO₂ Emissions Reduction Effect during Production



Waste Reduction Effect during Production



- CO₂ emission from production decrease by 18 thousand tons in 2022 (7% decrease relative to 2019)
- Each production site and high-burden site implements reduction activities matched to its role

	Materials production sites 	Assembly and high-burden sites, etc. 	
	Energy saving	Annual rate 3%	Annual rate 2%
	Resource recycling contribution	Annual rate 2%	
	CO ₂ reduction outside Konica Minolta	Annual rate 1%	Annual rate 2%
Concept	Build and refine in-house productivity and energy saving technology on-site to strengthen competitiveness	Dramatically expand reduction of environmental impact in society by providing stakeholders with Konica Minolta know-how	

* Sustainable Factory guidelines
 (1) VOC reduction (2) Guidelines for Biodiversity Preservation (water, soil, marine plastics, chemicals) (3) CSR procurement (4) Renewable energy plans, etc.

* For sites that fall below 1% share of total waste generated and energy used in Konica Minolta production, the target value is to be an annual rate of 1%.



- Provide suppliers with environmental experience and know-how
- Simultaneously realize reductions of environmental burden and costs



Wuxi Plant

6 suppliers

Dongguan Plant

8 suppliers

9 suppliers

Malaysia Plant

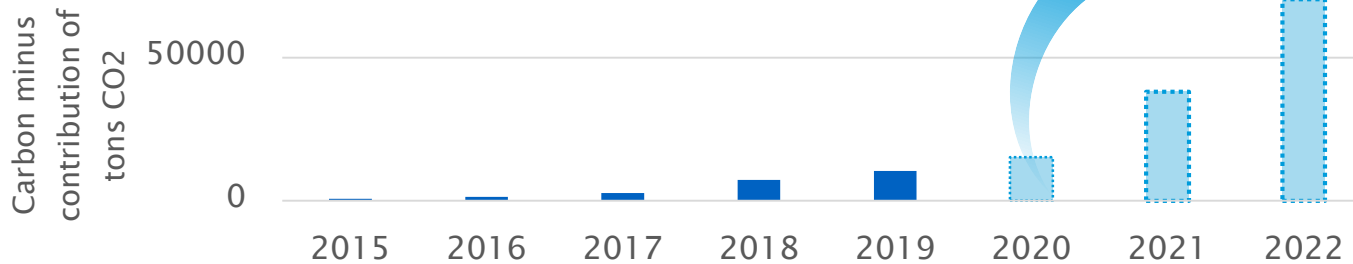
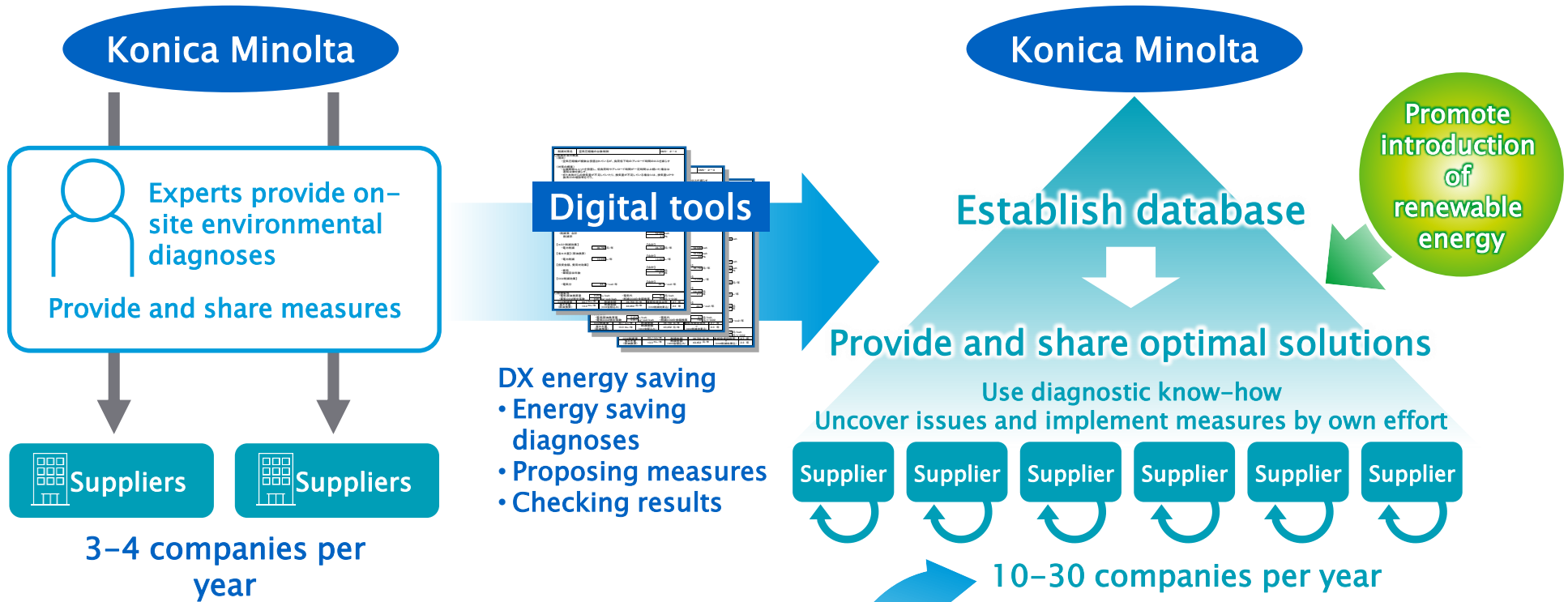
Konica Minolta
environmental
experts



- CO₂ reduction: 14 thousand tons (FY2019)
- Effectively used resources: 1.3 thousand tons
↓
- Monetary equivalent of reduction effect:
370 million yen

DX Green Supplier Activities: Evolution Toward 2022

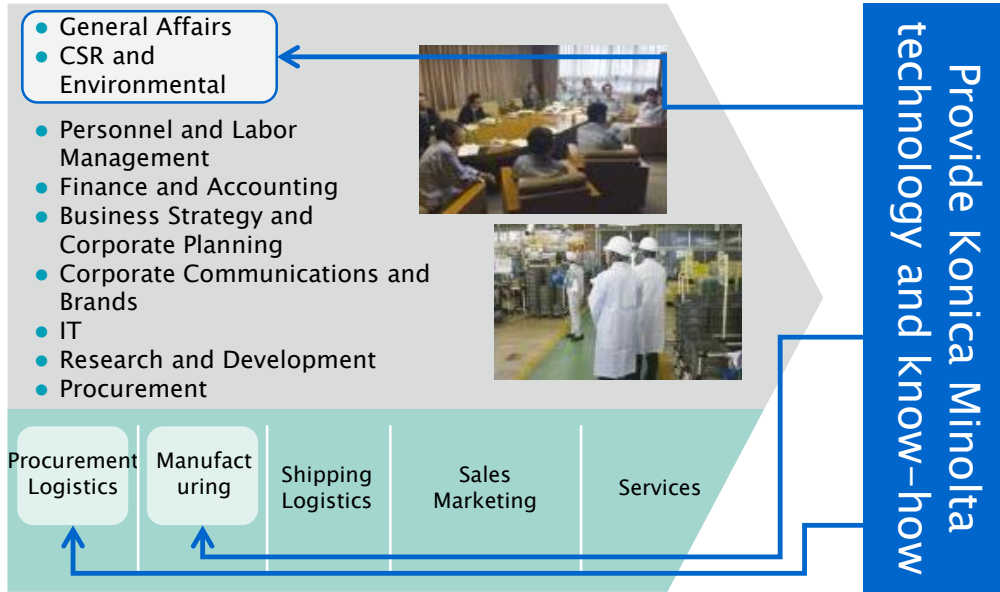
Activities until now Individual activities **DX-GS activities** Establish ecosystem



Green Marketing Activities: Activities Continued from the past



Support activities
(cost centers)

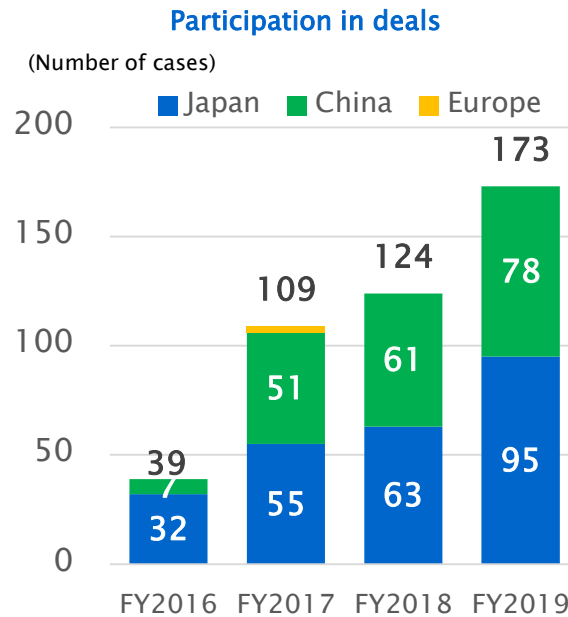
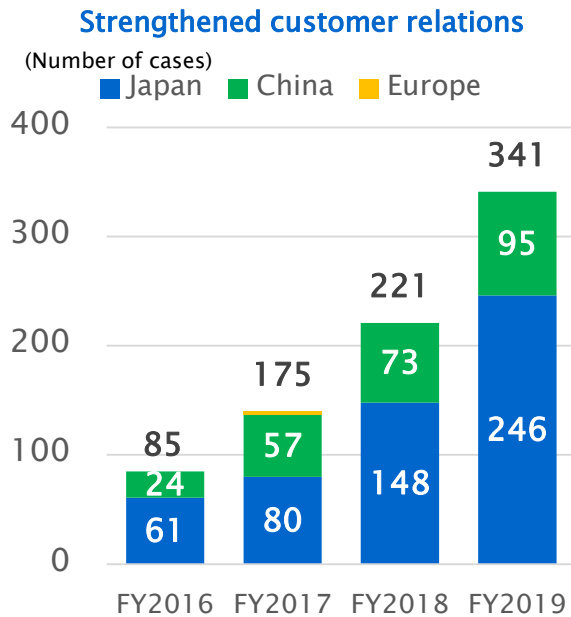
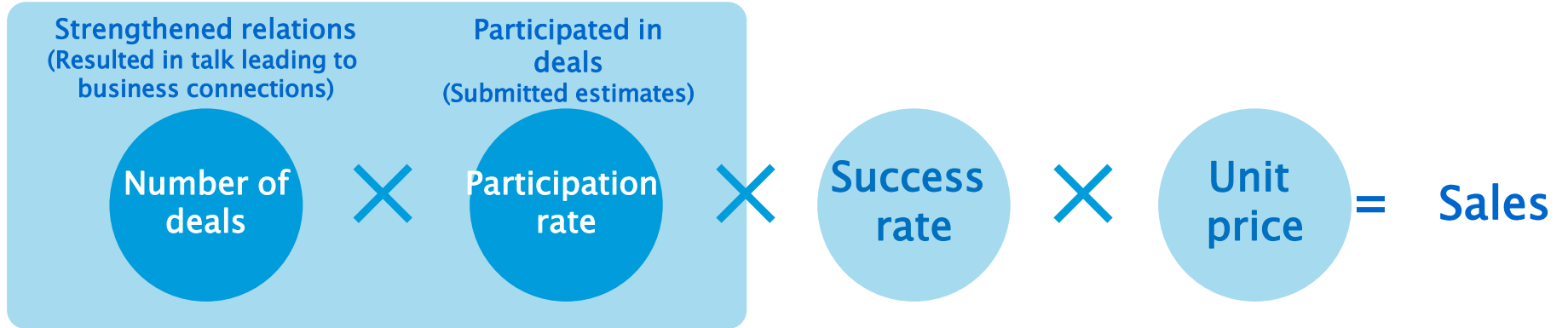


- Environmental management (Medium-term Environmental Plan/material issues)
- Environmental rating (DJSI/CDP, etc.)
- Environmental management system (integrated ISO, etc.)
- Examples of compliance with environmental laws and regulations, etc.
- Realize reductions of environmental burden and costs (Green Factory activities, etc.)
- Mechanisms for managing chemicals in products (methods for dealing with inquiries from supply sources), etc.

Main activities (profit centers)



Green Marketing Activities: 2019 Results



FY2014–2019 results

Number of contracts: 429

- Number of MFPs sold: 2,530 units
- Production printing machines: 5 units
- Solution cases, etc.: 149 cases

Customer base of 1,300 companies

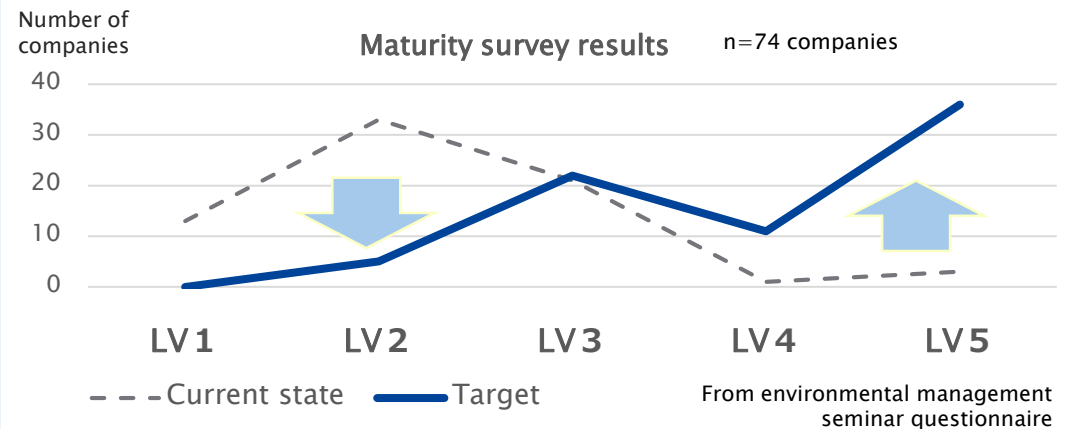
External changes

- **Heightening societal demand regarding environmental issues**
 - Concerns about warming (Paris Agreement, SBT, TCFD)
 - Progress to 100% renewable energy (RE100)
 - CO2 measures in supply chain and demands for renewable energy
- **Countries moving to strengthen their laws and regulations**
 - EU trend toward climate-neutral legislation
 - EU circular economy action legislation
- **Expanding ESG investment**
 - Achieve balance between business value and social value advocated by CSV
- **Demands regarding SDGs**
 - Resolution of environmental issues and business growth through innovation

Issues for companies

- **Thorny issues for companies**
 - They want to raise the level of environmental activity.
 - Meanwhile, environmental issues keep increasing.

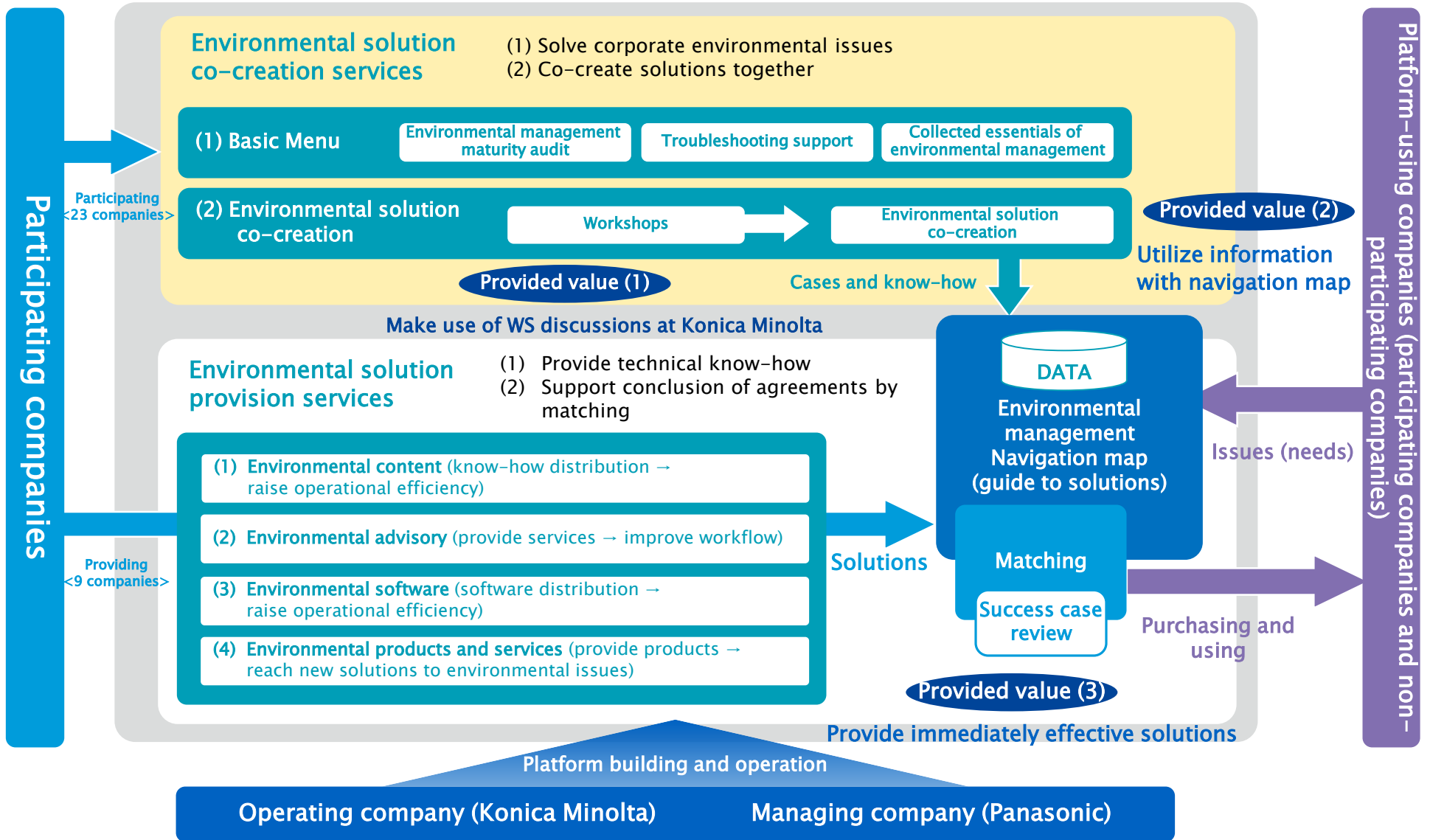
Level 1 Statutory compliance	Level 2 Information disclosure	Level 3 Contribution in business	Level 4 Expansion of business value	Level 5 Sustainable growth
Environmental laws and regulations, risk handling	In-house environmental burden reduction activities	In-house life-cycle environmental burden reduction activities	Create business value by activities that draw in stakeholders	Environmental activities lead to business growth



Issue (1) Maximizing operational efficiency to deal with heightening demand regarding the environment

Issue (2) Creating innovation that leads to growth of business supporting SDGs

Environmental Digital Platform



Environmental Digital Platform Participating Companies (Total 33 companies as of December 2021)



KONICA MINOLTA

Manufacturing industry						Non-manufacturing industry						
Electric Appliances / Machinery	Transportation equipment	Foods	Chemicals / pharmaceuticals / Textiles and Apparels / Rubber Products	Iron and steel / Metals Products	Glass and Ceramics Products	Information and Communication	Electric Power and Gas	Transportation	Retail Trade / Wholesale Trade	General consulting	Environmental services	Other
June												
Azbil Konica Minolta Panasonic 1 other company	Denso Toyota Boshoku	Kagome		YKK ap	1 company					Mitsubishi UFJ Research and Consulting	Carbon Free Consulting blue dot green Yachiyo Engineering	
December												
Kito NSK Fujitsu General 2 other companies		Nichirei	Aica Kogyo Otsuka Pharmaceutical Factory Daicel Lion 1 other company		Nichias 1 other company		Osaka Gas Kansai Electric Power	1 company	Sangetsu		Ecologica Waara	1 company

Reduce Energy and CO₂ by Improving Customer's Processes

■ Environmental and social value*
 ■ Economic value

Medium-term plans

Business	Providing value	KPI	2020	2021	2022
Business A	Energy and CO ₂ reduced in customer production processes	Carbon minus contribution	560 thousand tons	580 thousand tons	640 thousand tons
		Solution sales	Finalize in medium-term business plan		
Business B	GHG leak prevention by monitoring of chemical plant, gas plant and pipelines	Carbon minus contribution	18 thousand tons	35 thousand tons	71 thousand tons
		Solution sales	Finalize in medium-term business plan		
Business C	Reducing losses in customer processes by process technology making use of materials	Carbon minus contribution	—	29 tons	47 tons
		Solution sales	Finalize in medium-term business plan		
Business D	Globally coordinating and providing services to customers by means of DX-based ecosystem	Carbon minus contribution	—	5 thousand tons	40 thousand tons
		Solution sales	Finalize in medium-term business plan		

Logic for converting into social value

(Number of solution adoption cases) × (Greenhouse gas curbed per case)

<Applicable solution>
• Product

(Number of solution adoption cases) × (Greenhouse gas curbed per case)

<Applicable solution>
• Product

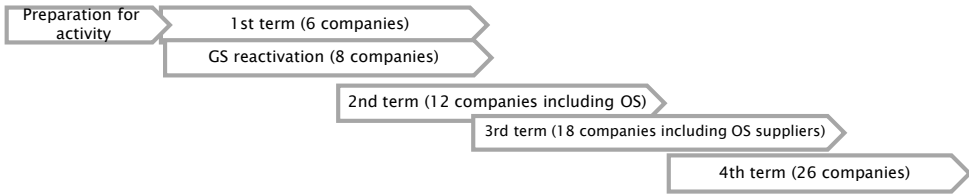
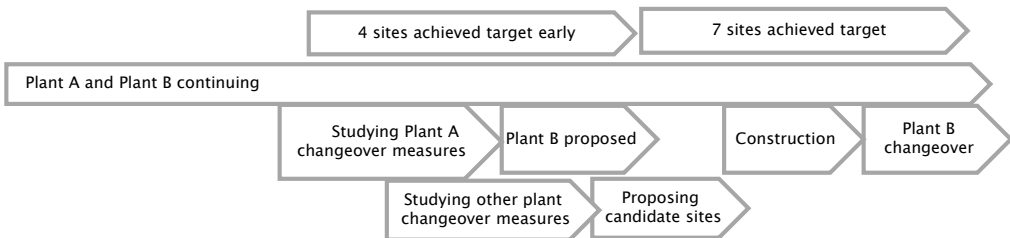
(Number of solution adoption cases) × (Greenhouse gas curbed per case)

<Applicable solution>
• Product

(Number of sites adopting energy-saving solutions) × (Reduction per site)

<Applicable solutions>
• Energy-saving solutions

■ Environmental and social value*
 ■ Economic value*

Themes	Business division	KPI/Major initiatives	2020	2021	2022
1) Contribute to cost reduction by reducing supplier environmental burden through DX (DX green supplier activities)	A Division B Division	KPI CO ₂ reduction Carbon minus contribution	7,432 tons 13,121 tons	11,852 tons 21,071 tons	18,168 tons 32,000 tons
		Cumulative monetary equivalent of energy reduction (Cumulative contribution to cost reduction)	37 million yen (8 million yen)	258 million yen (10 million yen)	603 million yen (30 million yen)
▼DX green supplier activities					
2) Contribution to cost reduction by environmental burden reduction at sites (Sustainable Factory)	A Division B Division C Division D Division	KPI CO ₂ reduction (production)	9,796 tons Energy saving 4,077 Renewable energy 5,719	17,626 tons Energy saving 11,713 Renewable energy 5,913	27,513 tons Energy saving 18,461 Renewable energy 9,052
		Cumulative monetary equivalent of energy reduction (Cumulative contribution to cost reduction)	89 million yen (59 million yen)	265 million yen (100 million yen)	426 million yen (123 million yen)
▼ Sustainable Factory Certification System ▼ Switch to renewable energy					



KONICA MINOLTA