

# **Social Report**

• Business operating / functional support companies refer to the following seven companies:

SCREEN Advanced System Solutions Co., Ltd., Functional support companies: SCREEN Business Support Solutions Co., Ltd., SCREEN IP Solutions Co., Ltd.

Employees 1	Awards and certifications (related to CSR) 6	Waste/recycling	12
Number of employees Number of employees by region Average age of employees Average length of service per employee Average annual salary per employee Employee turnover	• Awards and certifications  Environmental Report	Breakdown of waste emissions     Total volume of waste emissions by business manufacturing site     Breakdown of external waste emissions     Breakdown of resources of value indicated above     Recycling rates	; and
Diversity 2		Water	13
Number of female employees Ratio of female and non-Japanese employees by post Ratio of non-Japanese employees by employee Employment of people with disabilities Reemployment of after retirement age	Environmental management 7  ISO certification status ISO certification acquisition rate Legal compliance and reported complaints	Total water withdrawals Total water discharges BOD and COD emissions	
Employment creation 2	Environmental accounting 8	Green purchasing ratio	13
Recruitment results	• Environmental protection costs	• Green purchasing ratio	
Retention of new graduates three years after hiring	•Environmental preservation effects	Air quality	14
Work-life balance 3	Greenhouse gases 9	•SOx and NOx emissions	
Number of employees taking advantage of childcarerelated systems Ratio of employees taking childcare leave Number of employees taking advantage of family	• CO <sub>2</sub> emissions • Energy consumption • Green power	Reducing environmental impacts of products  • Percentage of total sales and number of Green Products	
carerelated systems	•Reduction measures targeting CO <sub>2</sub> emissions	Green Value 21	14
Percentage of annual paid leave taken by employees  Occupational health and safety 4	Transportation and logistics 10	• Green Value 21, Phase IV targets and performance	
Number of occupational accidents and incidents Occupational health and safety activities: Targets and performance Frequency rate of occupational accidents	$ \begin{array}{l} \bullet \text{CO}_2 \text{ emissions from logistics operations} \\ \bullet \text{Reduction in CO}_2 \text{ emissions resulting from modal shift} \\ \bullet \text{Number of trucks involved in transportation} \\ \bullet \text{Environmental consideration for transportation packaging} \\ \end{array} $	Material Balance	15
Severity rate of occupational accidents     Number of recipients of occupational health and safety education     EHS training system	Chemical substances 11  • Substances subject to the PRTR Act • PCB processing status	Technical foundation	
Code of Conduct training/CSR activities 5		Technical foundation	16
• CSR charter training • CSR activities	Materials input 11  Total amount of input materials	Number of patents held by region     Patent allowance rates	

Business operating companies: SCREEN Semiconductor Solutions Co., Ltd., SCREEN Graphic Solutions Co., Ltd., SCREEN Finetech Solutions Co., Ltd., SCREEN Fe Solutions Co., Ltd.,

· All years shown are for the accounting year ending March 31 of the year shown. For example, "2019" or "FY2019" means the period from April 1, 2018 to March 31, 2019.

Data for fiscal years prior to the fiscal year ended March 31, 2018 include data for SCREEN Manufacturing Support Solutions Co., Ltd. (absorbed by SCREEN MFG Service Co.,

# **Social Report**

Number of emp	oloyees (SCREEN H	oldings and busine	ess operating / funct	ional support compa	nies)	(Pers
·	<u> </u>	2015	2016	2017	2018	2019
Regular employee	Male	2,072	2,049	2,031	2,034	2,019
logalar employee	Female	140	138	134	147	164
	Total	2,212	2,187	2,165	2,181	2,183
Contract employee	Male	8	10	13	19	24
	Female	3	1	2	0	0
	Total	11	11	15	19	24
otal		2,223	2,198	2,180	2,200	2,207
umber of emp	oloyees by region (S	CREEN Group)				(Pe
		2015	2016	2017	2018	2019
apan		3,319	3,370	3,403	3,484	3,602
orth America		386	353	368	384	430
urope		454	448	470	508	497
sia and Oceania		923	1,011	1,181	1,459	1,570
otal		5.082	5,182	5,422	5.835	6,099
male		45.3 40.3 45.0	45.6 40.0 45.3	45.6 39.8 45.3	45.5 40.2 45.1	2019 44.9 40.1 44.6
emale otal	of service per emp	40.3 45.0	40.0 45.3	39.8 45.3	40.2 45.1	44.9 40.1 44.6
emale otal	of service per emp	40.3 45.0 loyee (SCREEN He	40.0 45.3 Didings and business	39.8 45.3 operating / function	40.2 45.1 al support companies	44.9 40.1 44.6
emale otal verage length	of service per emp	40.3 45.0 <b>Iloyee (SCREEN H</b>	40.0 45.3 <b>Didings and business</b> 2016	39.8 45.3 operating / function 2017	40.2 45.1 al support companies 2018	44.9 40.1 44.6 ) (2019
emale  verage length  ale	of service per emp	40.3 45.0 loyee (SCREEN Ho 2015 20.4	40.0 45.3 <b>Didings and business</b> 2016 20.7	39.8 45.3 operating / function 2017 20.6	40.2 45.1 al support companies 2018 20.1	44.9 40.1 44.6 ) 2019 19.1
emale verage length ale emale	of service per emp	40.3 45.0 <b>Iloyee (SCREEN H</b>	40.0 45.3 <b>Didings and business</b> 2016	39.8 45.3 operating / function 2017	40.2 45.1 al support companies 2018	44.9 40.1 44.6 ) (2019
emale otal  verage length lale emale otal		40.3 45.0 loyee (SCREEN Ho 2015 20.4 17.7 20.3	40.0 45.3 bidings and business 2016 20.7 17.2 20.4	39.8 45.3 operating / function 2017 20.6 16.6	40.2 45.1 al support companies 2018 20.1 16.9 19.9	44.9 40.1 44.6 ) (7 2019 19.1 15.9 18.9
emale otal  verage length lale emale otal		40.3 45.0 loyee (SCREEN Ho 2015 20.4 17.7 20.3	40.0 45.3 bidings and business 2016 20.7 17.2 20.4	39.8 45.3 coperating / function 2017 20.6 16.6 20.3	40.2 45.1 al support companies 2018 20.1 16.9 19.9	44.9 40.1 44.6 ) (7 2019 19.1 15.9 18.9
emale otal  verage length ale emale otal		40.3 45.0 loyee (SCREEN Ho 2015 20.4 17.7 20.3 ee (SCREEN Holdi	40.0 45.3 bldings and business 2016 20.7 17.2 20.4 ngs and business op	39.8 45.3 operating / function 2017 20.6 16.6 20.3 erating / functional s	40.2 45.1 al support companies 2018 20.1 16.9 19.9	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9
emale  verage length  ale emale otal		40.3 45.0 loyee (SCREEN Ho 2015 20.4 17.7 20.3 ee (SCREEN Holdi 2015	40.0 45.3 bldings and business 2016 20.7 17.2 20.4 ngs and business op	39.8 45.3 coperating / function 2017 20.6 16.6 20.3 erating / functional s	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9
emale otal  verage length  lale emale otal  verage annual  ote: Rounded down	I salary per employo to the nearest ¥1,000.	40.3 45.0 loyee (SCREEN Holds) 20.4 17.7 20.3 ee (SCREEN Holds) 2015 8,455,000	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function	39.8 45.3 s operating / function 2017 20.6 16.6 20.3 erating / functional s 2017 9,188,000	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018 9,554,000	44.9 40.1 44.6 ) (7 2019 19.1 15.9 18.9 2019 9,623,000
emale otal  verage length lale emale otal  verage annual ote: Rounded down	I salary per employon to the nearest ¥1,000.	40.3 45.0 Noyee (SCREEN Holds) 2015 20.4 17.7 20.3  Pee (SCREEN Holds) 2015 8,455,000	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  Ings and business op 2016 8,894,000  coperating / function 2016	39.8 45.3 coperating / function 2017 20.6 16.6 20.3 cerating / functional s 2017 9,188,000 al support companies	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018 9,554,000	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000
emale otal  verage length ale emale otal  verage annual ote: Rounded down	I salary per employed to the nearest ¥1,000.	40.3 45.0 loyee (SCREEN Holds) 2015 20.4 17.7 20.3  ee (SCREEN Holds) 2015 8,455,000  ings and business 2015 10	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7	39.8 45.3 coperating / function 2017 20.6 16.6 20.3 cerating / functional s 2017 9,188,000 al support companies 2017 4	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018 9,554,000  s)  2018 19	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000
werage length ale male otal  verage annual ote: Rounded down	to the nearest ¥1,000.	40.3 45.0  loyee (SCREEN Holdi 2015 20.4 17.7 20.3  ee (SCREEN Holdi 2015 8,455,000  lings and business 2015 10 2	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7 1	39.8 45.3 coperating / function 2017 20.6 16.6 20.3 coperating / functional s 2017 9,188,000 al support companies 2017 4 0	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018 9,554,000  s) 2018 19 0	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000 (Page 2019 31 2
emale verage length ale emale otal  verage annual ote: Rounded down mployee turno	to the nearest ¥1,000.  Diver (SCREEN Holding Male Female Total	40.3 45.0  loyee (SCREEN Holdi 2015 20.4 17.7 20.3  ee (SCREEN Holdi 2015 8,455,000  lings and business 2015 10 2 12	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7 1 8	39.8 45.3  coperating / function 2017 20.6 16.6 20.3  erating / functional s 2017 9,188,000  al support companies 2017 4 0 4	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies)  2018 9,554,000  s)  2018 19 0 19	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000 (Pe 2019 31 2 33
emale otal  verage length lale emale otal  verage annual  ote: Rounded down  mployee turno	to the nearest ¥1,000.  Diver (SCREEN Hold)  Male Female Total Male	40.3 45.0  loyee (SCREEN Holdi 2015 20.4 17.7 20.3  ee (SCREEN Holdi 2015 8,455,000  lings and business 2015 10 2 12 23	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7 1 8 18	39.8 45.3  operating / function 2017 20.6 16.6 20.3  erating / functional s 2017 9,188,000  al support companies 2017 4 0 4 10	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies)  2018 9,554,000  s)  2018 19 0 19 8	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000 (Pe 2019 31 2 33 29
fale emale otal  verage annual ote: Rounded down	to the nearest ¥1,000.  Diver (SCREEN Hold)  Male Female Total Male Female Female	40.3 45.0 loyee (SCREEN Holdi 2015 20.4 17.7 20.3 ee (SCREEN Holdi 2015 8,455,000 lings and business 2015 10 2 12 23 1	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7 1 8 18 4	39.8 45.3 s operating / function 2017 20.6 16.6 20.3 erating / functional s 2017 9,188,000 al support companies 2017 4 0 4 10 1	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies) 2018 9,554,000  s)  2018 19 0 19 8 0	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9  2019 9,623,000  (Pe 2019 31 2 33 29 3
emale otal  verage length lale emale otal  verage annual  ote: Rounded down  mployee turno	to the nearest ¥1,000.  Diver (SCREEN Hold)  Male Female Total Male	40.3 45.0  loyee (SCREEN Holdi 2015 20.4 17.7 20.3  ee (SCREEN Holdi 2015 8,455,000  lings and business 2015 10 2 12 23	40.0 45.3  coldings and business 2016 20.7 17.2 20.4  coldings and business op 2016 8,894,000  coperating / function 2016 7 1 8 18	39.8 45.3  operating / function 2017 20.6 16.6 20.3  erating / functional s 2017 9,188,000  al support companies 2017 4 0 4 10	40.2 45.1  al support companies  2018 20.1 16.9 19.9  support companies)  2018 9,554,000  s)  2018 19 0 19 8	44.9 40.1 44.6 ) 2019 19.1 15.9 18.9 2019 9,623,000  (P) 2019 31 2 33 29

Employment transfer

Other

Female Total

Male

Total

Male

Total

Female

Female

Notes 1: Excludes retirees.
2: "Early retirement" refers to employees who retired under the voluntary early retirement incentive program.

Diversity								
Number of female employees (SCREEN Holdings and business operating / functional support companies)								
	2015	2016	2017	2018	2019			
On professional career track	69	77	84	94	112			
On clerical career track	71	61	50	53	52			
Total	1/10	138	13/	147	164			

Ratio of female an	d non-Japanese employees by post (	(SCREEN Holding	s and business operating / fu	unctional support compa	anies) (Person)
2019		Management post	(Of whom, General Managers or higher)	(Of whom, Corporate Officers)	Directors
Total		697	115	16	6
Ratio of female	Number of female employees	14	2	0	0
employees	Ratio of female employees	2.01%	1.74%	0.00%	0.00%
Ratio of non-	Number of non-Japanese employees	10	3	0	0
Japanese employees	Ratio of non-Japanese employees	1.43%	2.61%	0.00%	0.00%

atio of non-Japanese employees by employee (SCREEN Holdings and business operating / functional support companies)					
	2015	2016	2017	2018	2019
Non-Japanese	22	23	27	31	40
Ratio of non-Japanese employees	0.99%	1.05%	1.25%	1.42%	1.83%
Note: Demostic colu					

Note: Domestic only

Employment of people with disabilities (SCREEN Holdings and business operating / functional support companies)						
		2015	2016	2017	2018	2019
Number employed Male	Male	46	45	44	50	55
	Female	6	7	9	12.5	14
	Total	52	52	53	62.5	69
Employment ratio		2.02%	2.03%	2.05%	2.35%	2.59%

Reemployment of a	Reemployment of after retirement age (SCREEN Holdings and business operating / functional support companies)					
		2015	2016	2017	2018	2019
Number of reemploying	Male	38	45	67	93	122
employees	Female	6	4	4	4	3
	Total	44	49	71	97	125

Employment	creation						
Recruitment results (SCREEN Holdings and business operating / functional support companies)							
		2015	2016	2017	2018	2019	
New graduates	Male	45	44	44	47	55	
	Female	2	10	8	7	11	
	Total	47	54	52	54	66	
Mid-career employees	Male	7	3	27	63	96	
	Female	1	0	0	5	9	
	Total	8	3	27	68	105	

Retention of new graduates th	ree years after hiri	ng (SCREEN Holdings	s and business opera	ting / functional supp	oort companies) (%)
	hired in 2012.4	hired in 2013.4	hired in 2014.4	hired in 2015.4	hired in 2016.4
Male	88.6	90.2	97.7	97.7	93.2
Female	100	75	100	100	100
Total	89.5	87.8	97.8	98.1	94.2

# Work-life balance

Number of employees taking advantage of childcare-related systems (SCREEN Holdings and business operating / functional support companies) (Person)

						, ,
		2015	2016	2017	2018	2019* <sup>1</sup>
Number of employees who took maternity leave		9	7	8	2	6
Number of employees	Male	2	0	0	1	57* <sup>2</sup>
taking childcare leave (By year leave started)	Female	9	9	6	5	5
(by year leave starteu)	Total	11	9	6	6	62
Number of employees	Male	0	0	3	2	1
using a short working hours system due to childcare	Female	50	44	48	45	45
system due to childcare	Total	50	44	51	47	46

<sup>\*1</sup> Introduced spouse childcare leave system in the fiscal year ended March 31, 2019.

# Ratio of employees taking childcare leave (SCREEN Holdings and business operating / functional support companies)

(%)

	2015	2016	2017	2018	2019
Male	3.08	0	0	1.23	91.94
Female	100	100	100	100	100
Total	14.86	12.33	8.82	7.14	92.54

Number of employees taking advantage of family care-related systems (SCREEN Holdings and business operating / functional support companies) (Person)

	•	•	•		•	, (1 613011)
		2015	2016	2017	2018	2019
Number of employees	Male	2	1	2	1	1
taking family care leave (short term)*	Female	0	0	0	0	1
(SHOLL LETTI)	Total	2	1	2	1	2
Number of employees	Male	1	0	1	1	0
taking family care leave (long term)*	Female	0	0	0	0	0
(long term)	Total	1	0	1	1	0
Number of employees using	Male	0	0	0	0	0
a short working hours system due to family care	Female	0	0	0	0	1
System due to family cale	Total	0	0	0	0	1

Note: Family-Care Leave: up to 93 days in total under the law; Long-term Care Leave: 235 days from the day following the date of expiration of Family-Care Leave period.

# Percentage of annual paid leave taken by employees (SCREEN Holdings and business operating / functional support companies)

(%)

	2015	2016	2017	2018	2019
Percentage of annual paid leave taken	71.5	75.9	75.0	74.5	80.8

Notes: 1. Percentage of annual paid leave days (23 days per year) taken.

<sup>\*2</sup> Of those taking childcare leave, 57 were men taking spouse childcare leave. One of these 57 men used spouse childcare leave in unison with childcare leave.

<sup>2.</sup> Only general staff

# Occupational health and safety

- Notes: 1. Occupational accidents: Work-related injury, illness or death that leads any treatment at medical institution.
  - 2. Incidents: Fire, explosion, gas leak, chemical outflow, collapse or collision, hat is not leading to injuries or deaths, and resulting damage to facilities, machinery or equipment. Also, a traffic accident (property damage only).

# Number of occupational accidents and incidents (SCREEN Group in Japan)

	2015	2016	2017	2018	2019
Occupational accidents at SCREEN Holdings and business operating / functional support companies	5	4	5	6	5
Incidents at SCREEN Holdings and business operating / functional support companies	6	3	4	4	3
Occupational accidents at other group companies	7	3	5	15	9
Incidents at other group companies	1	3	5	5	4
Occupational accidents at partner companies	5	4	6	7	16
Incidents at partner companies	8	1	2	3	1
Occupational accidents resulting in four or more days of lost work	1	3	3	1	4

As of the fiscal year ended March 31, 2019, occupational accidents at partner companies increased by double from previous year.

# Number of occupational accidents and incidents (overseas Group companies)

2018	2019
15	14
14	8
0	0
0	0
2	0
0	0
_	0 2 0

# Occupational health and safety activities: Targets and performance

		Targets	Actual performance
2016	Occupational accidents resulting in four or more days of lost work	Zero occupational accidents	3
	Occupational accidents points*	No more than 250 points	290 points
	Global number of accidents leading to lost workdays	No more than ten accidents	11
	Traffic accidents or incidents	No more than five incidents	5
	Periodic health examination	100%	99.9%
	Health examination of employees posted overseas	100%	82.1%
2017	Occupational accidents resulting in four or more days of lost work	Zero occupational accidents	3
	Occupational accidents points*	No more than 250 points	350 points
	Global number of accidents leading to lost workdays	No more than ten accidents	13
	Traffic accidents or incidents	No more than five incidents	2
	Periodic health examination	100%	100%
	Health examination of employees posted overseas	100%	90.7%
2018	Occupational accidents resulting in four or more days of lost work	Zero occupational accidents	1
	Occupational accidents points*	No more than 250 points	350 points
	Global number of accidents leading to lost workdays	_	10
	Traffic accidents or incidents	_	10
	Periodic health examination	_	100%
	Health examination of employees posted overseas	_	90%
2019	Occupational accidents resulting in four or more days of lost work	Zero occupational accidents	4
	Occupational accidents points*	No more than 250 points	570 points
	Global number of accidents leading to lost workdays	_	14
	Traffic accidents or incidents	_	6
	Periodic health examination	_	100%
	Health examination of employees posted overseas	_	94%

For GV 21, Phase IV, which started beginning with the fiscal year ended March 31, 2018, we are working toward the goals indicated under "Occupational accidents resulting in four or more days of lost work" and "Occupational accident points."

For the fiscal year ended March 31, 2019, the number of occupational accidents at partner companies increased, so we were unable to achieve our goals.

<sup>\*</sup> Internal points system for occupational accidents.

# Frequency rate of occupational accidents

	2015	2016	2017*	2018	2019
Frequency rate of occupat ional accidents at SCREEN Holdings and business operating / functional support companies	0.22	0.00	0.19	0.00	0.25
Industry average of manufacturers in Japan	1.06	1.06	1.15	1.02	1.20
Industry average of manufacturers of electrical equipment in Japan	0.41	0.54	0.51	0.45	0.58

Note: Frequency rate = [(Number of injuries or deaths/hours worked) x 1,000,000] indicates number of injuries or deaths from occupational accidents per 1 million hours of work. Note: The data has been changed from the fiscal year ended March 31, 2017 to January-December 2016. This is consistent with the industry average calculation period.

# Severity rate of occupational accidents

	2015	2016	2017*	2018	2019
Severity rate of occupational accidents at SCREEN Holdings and business operating / functional support companies	0.01	0.00	0.01	0.00	0.00
Industry average of manufacturers in Japan	0.09	0.06	0.07	0.08	0.10
Industry average of manufacturers of electrical equipment in Japan	0.01	0.03	0.05	0.02	0.02

Note: Severity rate = [(Days of work lost / total working hours) x 1,000] indicates number of days lost per 1,000 hours of work.

Note: The data has been changed from the fiscal year ended March 31, 2017 to January-December 2016. This is consistent with the industry average calculation period.

# Number of recipients of occupational health and safety education (SCREEN Group in Japan)

(Person)

	Education for new employees	Follow-up education for new employees	Management education	Foreman education	Risk assessor education
2016	89	55	42	7	65
2017	76	73	37	31	61
2018	82	82	38	31	88
2019	104	100	38	3	40

# EHS training system

Basic courses	General employee course (new graduates, mid-career recruits)	Courses by job	Product designer course	
	General employee course (Disaster prevention and EHS management basics)	function	Purchasing manager course	
	Foreman course		Facility operator course	
	Manager course		Factory facility manager course	
	Self-care/Line-care		Waste management course Chemical substance management course	
EHS management	Safety confirmation drill based on BCP and BCM			
	Disaster prevention, EHS manager, and secretariat courses		Course for specific persons handling chemical solutions or gases	
course	Issue-specific course for section committee members		Workplace vehicle operator course	
	Internal EHS auditor course Course for obtaining legal qualifications		Course for obtaining legal qualifications	
	Environmental assessor course		Product EHS training	
	OHSMS risk assessor course	Organization- specific courses	Course for obtaining legal qualifications	
	Course for obtaining legal qualifications		Customer-specific license training course	
	Product risk assessor course		Customer support course	
	Product Safety Expert training course		Disaster prevention training	
	BCMS-BIA risk assessor course		Emergency response training	
	BCMS drill trainer course		Simulation training based on BCP	
	Training using revised manuals		Qualifications, etc. required for individual lines and groups	
	Disaster analysis training			

# Code of Conduct training/CSR activities

# CSR charter training (SCREEN Group in Japan)

(%)

	2017	2018	2019
e-learning completion rate	90.5	86.5	92.0
CSR Talk participation rate	_	81.8	81.0

#### CSR activities

#### Environmental preservation

- In 2018, signed agreement on preserving forest uses as part of CSR activities in the area of environmental preservation.
- · Since 2018, participating in the Kyoto Life and Culture Collaborative Rejuvenation Project promoted by the City of Kyoto. Under a three-year plan, we are promoting cultivation of endangered rare plants by planting garden beds at our Head Office location (in Kyoto).
- Since 2016, we have been a sponsor of the Kyoto Municipal zoo as a feed sponsor.
- · Since 2016, we have sponsored renovation at the Lake Biwa Museum

# and education

- Support for Science Since 2015, we have been a sponsor of the Science Inter-College Research Presentation Conference sponsored by the Ministry of Education, Culture, Sports, Science and Technology, and have awarded the "SCREEN Prize."
  - Since 2015, SCREEN Semiconductor Solutions has been a sponsor of the FIRST Robotics Competition, a high school robotics competition in the US.
  - · Presented lectures at universities on Practical Exercises for Corporate CSR and engaged in dialog with students.
  - · Since 2010, we have welcomed company visits at our Rakusai Site by high school students with an interest in science from countries around the world and who are attending the Japan Super Science Fair.
  - · Since 2009, we have sponsored the Kyoto Manufacturing Hall of Fame and Manufacturing Workshop Learning, and hold school visits for elementary school students. In fiscal 2017, 512 elementary school students from 12 schools participated.
  - Since 2016, we have set up a booth at the Toy Contest Grand Prix in Kyoto where participants can have fun while learning how printing works.
  - · Our head office gave company tours to high school students (from Okayama Prefecture, Tochigi Prefecture, and Kyoto Prefecture)
  - · Our Monzen-nakacho Site (White Canvas MON-NAKA) has worked with nearby elementary schools to provide school visits for third graders since 2012.
  - · We are a sponsor of the Museum of Astronomical Telescopes that preserves and displays valuable astronomical telescopes.
  - We collaborate with the PHP Compassion Campaign to collect and forward used postage stamps.

#### Sports/Culture Assistance & Promotion

- We are supporting creative activities by displaying artwork in the lobbies of our Head Office and Rakusai Site done by artists belonging to Tensai-Art KYOTO, a non-profit research organization promoting art by people with disabilities.
- · Sponsor of the National Wheelchair Ekiden Race competition since 2014.
- Sponsor of the Kvoto Ladies Open since 2014

- Community Service The SCREEN Group conducts regular cleanups around each of our facilities.
  - Since 1990, our Hikone Plant has been working with local residents to clean up the Ota River, which flows in front of the facility.
  - Employees of our Yasu Plant participate as volunteers in the Yasu City "Operation Zero Garbage" in Yasu City
  - · Since 2014, we have participated as volunteers in the Gion Festival "Operation Zero Garbage.
  - · Since 1985, we have participated as volunteer "float pullers" in the grand procession of floats in the Gion Festival.

### Social Welfare

- · Once a month, during lunch breaks, cookies and miscellaneous goods made at disabled employment support facilities are sold at the Head Office, Hikone Plant, and Nishikyogoku site.
- · SCREEN HD Korea does volunteer work at the Seoul Welfare Center for the Elderly.
- · At Inca Digital Printers, employees participate in various fundraising events and donate to charitable organizations.
- · Since 2010, we have co-sponsored "Table For Two" activities, where each meal eaten also delivers a meal to children in developing countries. Since 2010, we will have provided a total of more than 140,000 meals.

# Awards and certifications (related to CSR)

#### Awards and Certifications

	Recipient	Award giving organization	Content of award or recognition	Result
June 2018	SCREEN Holdings	NPO Table for Two International	Silver Supporter	Certified
July 2018	SCREEN Holdings Corporate Officer Tadashi Kawarabayashi	Ministry of Internal Affairs and Communications	Received the 2018 Minister of Internal Affairs and Communications Safety Award (individual category)	Commended
October 2018	SCREEN SPE Taiwan Co., Ltd.	Micron Technology Taiwan, Inc.	Received an award for outstanding contractor of EHS management performance	Awarded
November 2018	SCREEN Graphic Solutions Co., Ltd.	Japan Federation of Printing Industries	Received a 2018 Green Printing Eco Award (equipment category)	Awarded
December 2018	SCREEN Semiconductor Solutions Co., Ltd.	Taiwan Semiconductor Manufacturing Co. Ltd.	Received an Excellent performance in Wet Clean Equipment Award	Awarded
February 2019	SCREEN Holdings	Japan's Ministry of the Environment and the Global Environmental Forum	Received Excellence Prize in the environmental report category of the 22nd Environmental Communication Awards	Awarded
February 2019	Hikone Site	Shiga Prefecture Traffic Strategy Division	'Zero-Accident Certificate' issued under Shiga Prefecture Job-Specific Traffic Safety Zero-Accident Campaign	Commended
March 2019	SCREEN Holdings	Shiga Prefecture	Received 3 Stars, the highest evaluation, in the Shiga Biodiversity Conservation Certification Program, sponsored by the Shiga Prefectural Government	Certified
March 2019	SCREEN Holdings and business operating companies / functional support companies	Ministry of Economy, Trade and Industry	Company of Excellence for Health and Productivity Management 2019 (White 500)	Certified
March 2019	Hikone Site	Hikone/Inugami Region Safe Driving Managers Association	2018 Site-specific Movement to Eliminate Traffic Accidents and Violations	Awarded
March 2019	SCREEN Holdings	Lake Biwa Museum	Sponsor of the renovation project for Lake Biwa Museum	Awarded

# **Environmental Report**

					As of July 31, 201
	ISO9001	ISO14001	OHSAS18001	ISO50001	ISO22301
SCREEN Holdings Co., Ltd.		Acquired	Acquired	Acquired	Acquired
SCREEN Semiconductor Solutions Co., Ltd.	Acquired	Acquired	Acquired	Acquired	Acquired
SCREEN Graphic Solutions Co., Ltd.	Acquired	Acquired	Acquired	Acquired	
SCREEN Finetech Solutions Co., Ltd.	Acquired	Acquired	Acquired	Acquired	Acquired
SCREEN PE Solutions Co., Ltd.	Acquired	Acquired	Acquired	Acquired	
SCREEN Business Support Solutions Co., Ltd.		Acquired	Acquired	Acquired	Acquired
SCREEN IP Solutions Co., Ltd.		Acquired	Acquired	Acquired	
SCREEN Advanced System Solutions Co., Ltd.					
	ISO9001	ISO14001	OHSAS18001	ISO50001	ISO/IEC2700
SCREEN SPE Tech Co. Ltd.				10000001	100/1002/00
*	· · · · · · · · · · · · · · · · · · ·				
	· · · · · · · · · · · · · · · · · · ·				
	Acquired		· · · · · · · · · · · · · · · · · · ·		
	Acquired		· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				Acquired
<u> </u>	· · · · · · · · · · · · · · · · · · ·		<del></del>		Acquired
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		Acquired
<u> </u>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
	Acquired				
			<del></del>		
<u> </u>					Acquired
			· · · · · · · · · · · · · · · · · · ·		Acquired
					Acquired
	Δcquired		<del></del>		7 loquilou
SCREEN Business Expert Co., Ltd.	7 loquii ou	Acquired	Acquired	Acquired	
n status (overseas)			ISO9001	ISO14001	As of July 31, 20 OHSAS1800
				.001	5. 10, 10 1000
SCREEN GP Hangzhou			<del></del>	Acquired	
SCREEN GP Hangzhou			Acquired	Acquired	Acquired
SCREEN GP Hangzhou Inca Digital Printers Laser Systems & Solutions of Europe SASU			<del></del>	Acquired	Acquired
	SCREEN Finetech Solutions Co., Ltd.  SCREEN PE Solutions Co., Ltd.  SCREEN Business Support Solutions Co., Ltd.  SCREEN IP Solutions Co., Ltd.  SCREEN Advanced System Solutions Co., Ltd.  SCREEN Advanced System Solutions Co., Ltd.  SCREEN SPE Tech Co., Ltd.  SCREEN SPE Works Co., Ltd.  SCREEN SPE Quartz Co., Ltd.  SCREEN SPE Service Co., Ltd.  SCREEN SPE Service Japan East Co., Ltd.  SCREEN GP Service Japan West Co., Ltd.  SCREEN GP Service Japan West Co., Ltd.  SCREEN SPE SSERC Co., Ltd.  SCREEN SPE SSERC Co., Ltd.  SCREEN SPE SSERC Co., Ltd.  SCREEN GP Japan Co., Ltd.  SCREEN ICT Software Co., Ltd.  SCREEN Logistics Co., Ltd.  SCREEN System Service Co., Ltd.  SCREEN System Service Co., Ltd.	SCREEN Finetech Solutions Co., Ltd.  SCREEN PE Solutions Co., Ltd.  SCREEN Business Support Solutions Co., Ltd.  SCREEN IP Solutions Co., Ltd.  SCREEN IP Solutions Co., Ltd.  SCREEN Advanced System Solutions Co., Ltd.  SCREEN SPE Tech Co., Ltd.  SCREEN SPE Tech Co., Ltd.  Acquired  SCREEN SPE Works Co., Ltd.  Acquired  SCREEN SPE Quartz Co., Ltd.  SCREEN MFG Service Co., Ltd.  SCREEN MFG Service Co., Ltd.  SCREEN SPE Service Co., Ltd.  Acquired  SCREEN GP Service Japan East Co., Ltd.  Acquired  SCREEN GP Service Japan West Co., Ltd.  Acquired  SCREEN PE Engineering Co., Ltd.  Acquired  SCREEN SPE SERC Co., Ltd.  SCREEN SPE SERC Co., Ltd.  SCREEN GP Japan Co., Ltd.  SCREEN ICT Software Co., Ltd.  SCREEN Logistics Co., Ltd.  SCREEN System Service Co., Ltd.  SCREEN System Service Co., Ltd.  SCREEN System Service Co., Ltd.	SCREEN Finetech Solutions Co., Ltd.  SCREEN PE Solutions Co., Ltd.  SCREEN Business Support Solutions Co., Ltd.  SCREEN IP Solutions Co., Ltd.  SCREEN IP Solutions Co., Ltd.  SCREEN Advanced System Solutions Co., Ltd.  SCREEN Advanced System Solutions Co., Ltd.  SCREEN SPE Tech Co., Ltd.  SCREEN SPE Works Co., Ltd.  SCREEN SPE Works Co., Ltd.  SCREEN SPE Quartz Co., Ltd.  SCREEN MFG Service Co., Ltd.  SCREEN SPE Service Co., Ltd.  SCREEN SPE Service Co., Ltd.  Acquired  SCREEN GP Service Japan East Co., Ltd.  Acquired  Acquired  SCREEN GP Service Japan West Co., Ltd.  SCREEN SPE Engineering Co., Ltd.  SCREEN SPE Service Acquired  SCREEN SPE Service Japan West Co., Ltd.  Acquired  SCREEN GP Service Japan West Co., Ltd.  Acquired  Acquired  SCREEN GP Service Japan West Co., Ltd.  Acquired  SCREEN FE Engineering Co., Ltd.  Acquired  SCREEN SCREEN GP Japan Co., Ltd.  Acquired  SCREEN GP Japan Co., Ltd.  Acquired  SCREEN Logistics Co., Ltd.  Acquired  SCREEN Logistics Co., Ltd.  Acquired  SCREEN System Service Co., Ltd.  Acquired	SCREEN Finetech Solutions Co., Ltd.  SCREEN PE Solutions Co., Ltd.  Acquired  Acquired	SCREEN Finetech Solutions Co., Ltd.  Acquired Ac

# Legal compliance and reported complaints (SCREEN Group in Japan)

2015							
MEBACS	Waste Managem	ent and Public Cleansing Act	Used a waste-	disposal comp	any without concluding a subcontra	acting agreement	One case
Media Technology Japan	Road Traffic Ac	t	Parking violat	ion One	case		
2016							
SCREEN Semiconductor Solu	itions Co., Ltd.				erators were not notified that equipment		osed of contained One case
2017							
No particular issues arose.							
2018							
No particular issues arose.							
2019							
SCREEN Semiconductor So	lutions Co., Ltd.	Fluorocarbon Emission Re		contained flo	sal operators were not notified uorocarbons. As a result, said y when equipment was dispose	fluorocarbons we	re not processed

As of March 2019, the Company reviewed in-house disposal procedures that did not conform with the Fluorocarbon Emission Restriction Law.

# **Environmental accounting**

# (SCREEN Group in Japan) Environmental protection costs

(Millions of yen)

-								,	, ,
	Onto more		Protect	ion costs			Amount	invested	
	Category	2016	2017	2018	2019	2016	2017	2018	2019
Cost within business area	Pollution prevention: Wastewater treatment facilities, air treatment facilities	155	196	218	177	22	24	41	92
	Environmental preservation: Inverters, facilities for preventing global warming	43	60	25	57	179	59	14	88
	3. Resource circulation: Appropriate waste disposal	83	66	71	73	0	0	10	0
2. Upstream/ downstream costs	Recycled product business	702	444	742	805	0	0	0	0
3. Administration costs	Analysis and measurement, environmental management education	172	147	179	185	53	32	0	9
4. R&D costs	Development of environmentally friendly products	1,517	1,779	2,084	2,283	0	0	0	0
5. Social initiative costs	Publishing report, environmental beautification initiatives	12	19	16	32	5	19	11	15
Costs associated with resolving environmental damages		17	0	20	16	0	0	0	0
Total		2,701	2,739	3,356	3,623	259	134	77	204

### **Environmental preservation effects**

(Metric tons)

(Millions of yen)

				, ,			,	, ,
Octobro		Amount Cost					ost	
Category -	2016	2017	2018	2019	2016	2017	2018	2019
Effects of reduction efforts on volume of chemical substances used	5	-4	-6	-5	9	-7	-10	-6
Effects of reduction efforts on amount of energy used	-847CO <sub>2</sub>	-2,647CO <sub>2</sub>	-755CO <sub>2</sub>	-2,628CO <sub>2</sub>	210	-54	-1	44
Effects of reduction efforts on volume of waste emissions	169	-203	-534	-97	2	-2	-6	-1
Effects of resource conservation*	25	18	11	8	1,098	636	1,132	1,106
Total				-	1.319	572	1.114	1.143

<sup>\*</sup>Amount of products reused and income from paper and cardboard sold

#### **Greenhouse gases** CO<sub>2</sub> emissions (t-CO<sub>2</sub>) 2015 2016 2017 2018 2019 **Business and manufacturing sites** 26,268 Hikone 26,254 26,328 26,874 24,539 Sites in head office area 1,073 795 736 1,574 1,582 Rakusai 4,281 4,181 3,849 5,490 5,254 Taga 4,590 4,695 4,902 5,184 5,825 Yasu 6,668 6,302 6,458 6,449 5,340 Kumiyama 2,168 2,164 2,318 2,365 2,221 Sites in Tokyo area 332 156 160 296 340 Others 5,760 2,913 2,836 4,005 4,471 **SCREEN Group in Japan** Scope 1 11,625 12,440 12,009 11,861 11,375 Scope 2 36,620 36,652 38,441 39,284 36,564 Scope 1 + Scope 2 48,245 49,092 50,451 51,145 47,939 Scope 1 + Scope 2 emissions per unit weight of product shipment (t-CO<sub>2</sub>/ton) 8.47 6.76 6.71 6.72 5.98 **Overseas Group companies** Scope 1 787 398 254 373 242 Scope 2 3,594 3,033 2,652 3,258 2,385 Scope 1 + Scope 2 4,381 3,431 2,906 2,627 3,630 **SCREEN Group** Scope 1 11,835 11,436 12,263 12,234 11,617 41,087 41,093 42.542 38,949 Scope 2 40.790 54,776 Scope 1 + Scope 2 52,625 52,523 53,357 50.566 Scope 1 + Scope 2 emissions per sales unit (t-CO<sub>2</sub>/ton) 22.0 20.2 17.8 16.1 13.9

For the fiscal year ended March 31, 2018, CO<sub>2</sub> emissions for the Group as a whole were 50,566t-CO<sub>2</sub>, and its emissions per sales unit were 13.9 t-CO<sub>2</sub>/JPY100M, a 14% improvement over the previous year. Our Group in Japan received third party verification of greenhouse gas emissions (GHG third party verification) for the fiscal year ended March 2018 (Scope 1 and Scope 2).

 $Scope \ 1: 11,375t\text{-}CO_2, Scope \ 2: 36,564t\text{-}CO_2 \ (includes carbon dioxide emissions from energy sources; excluding emissions from fuel consumed in vehicles).$ 

Notes: 1. The method for tabulating CO<sub>2</sub> emissions from sites changed beginning from the fiscal year ended March 31, 2018. Data for each site includes CO<sub>2</sub> emissions from domestic Group companies that share the same premises. Site data up to the fiscal year ended March 2017 does not include CO<sub>2</sub> emissions from domestic Group companies, except business operating and functional support companies.

- 2. The total for Head Office area sites includes emissions data from the Head Office, the Nishikyogoku Site, and the Kyoto Minami Site, all located in the Kyoto region.
- 3. The total for Tokyo region sites includes emissions data for sites located in the Tokyo region. For the fiscal year ended March 2018, the total included data for the Monzennakacho Site, the Shinagawa Office, and the Otsuka Site. The Kudan Office closed at the end of fiscal year ended March 2017. The Shinagawa Office opened beginning from the fiscal year ended March 2017.
- 4. Scope 2 is calculated on a market basis

#### **Energy consumption**

(Thousands of gigajoules)

	2015	2016	2017	2018	2019
SCREEN Group in Japan					
Scope 1: Direct energy (town gas/LPG/kerosene)	221	211	207	205	197
Scope 2: Indirect energy (electricity)	723	703	752	765	815
Energy usage (Scope 1 + 2)	944	914	959	969	1,012
Overseas Group companies					
Scope 1: Direct energy (town gas/LPG/kerosene)	9	7	5	7	4
Scope 2: Indirect energy (electricity)	65	64	64	73	76
Energy usage (Scope 1 + 2)	74	71	68	79	81
SCREEN Group					
Scope 1: Direct energy (town gas/LPG/kerosene)	230	218	211	211	202
Scope 2: Indirect energy (electricity)	788	767	815	837	891
Energy usage (Scope 1 + 2)	1,018	985	1,027	1,049	1,093

For the fiscal year ended March 31, 2019, the Group's energy usage was 1,093,000 GJ, an increase of approximately 4% over the previous year. Note: Uses a conversion factor of 9.97 x 10-3 GJ per 1kWh of electricity consumption.

#### Green power

(Thousands of gigajoules)

	2015	2016	2017	2018	2019
Purchase amount of green power	0	0	0	0	1,665
Solar cell power generation	360	370	355	366	354

As of March 31, 2019, the Company purchased green energy certificates for 1,665,000 kWh, corresponding to the amount of electricity consumed annually by its headquarters facilities, thereby completely eliminating all CO<sub>2</sub> emissions originating from electricity consumption.

# Reduction measures targeting $\text{CO}_2$ emissions: Major initiatives

	Measure	Site	R	eduction			
2017	Replacement of air conditioners Kumiyama CO <sub>2</sub> reduction	Kumiyama	CO <sub>2</sub> reduction	69.4 metric tons/year			
	Cost-cutting		Cost-cutting	¥2,942,000			
	Replacement of water demineralizer pumps	Taga	CO <sub>2</sub> reduction	1.8 metric tons/year			
			Cost-cutting	¥44,000			
	Suspension of utility facility operation for operational	Hikone	CO <sub>2</sub> reduction	48.9 metric tons/year			
	Improvement (Water purifying facility and air pressure facility)		Cost-cutting	¥1,218,000			
	Replacement of office air conditioners CO <sub>2</sub> reduction	Yasu	CO <sub>2</sub> reduction	6.9 metric tons/year			
			Cost-cutting	¥171,000			
	Replacement of office light bulbs with LEDs	MT Service Japan	CO <sub>2</sub> reduction	9.4 metric tons/year			
		West Co., Ltd.	Cost-cutting	¥518,000			
2018	Absorption chiller/heater replacement	Rakusai	CO <sub>2</sub> reduction	576.1 metric tons/year			
			Cost-cutting	¥18,290,000			
	Air conditioner replacement and system overhaul	Rakusai	CO <sub>2</sub> reduction	22.7 metric tons/year			
			Cost-cutting	¥777,000			
	Air conditioner air volume control modification	Yasu	CO <sub>2</sub> reduction	5.4 metric tons/year			
			Cost-cutting	¥138,000			
	Office air conditioner replacement	Yasu	CO <sub>2</sub> reduction	7.7 metric tons/year			
			Cost-cutting	¥192,000			
	Discharge pump replacement	Hikone	CO <sub>2</sub> reduction	1.2 metric tons/year			
			Cost-cutting	¥24,000			
2019	Change of air conditioning method, switch to LED lighting	Rakusai	CO <sub>2</sub> reduction	873.0 metric tons/year			
			Cost-cutting	¥24,031,000			
	Upgrading of air conditioners in office building, upgrading of	Yasu	CO <sub>2</sub> reduction	99.0 metric tons/year			
	chillers for production cooling		Cost-cutting	¥2,489,000			
	Replacement of multi air conditioners	Kumiyama	CO <sub>2</sub> reduction	23.0 metric tons/year			
			Cost-cutting	¥631,000			
	Change of air conditioning method	Nishikyogoku	CO <sub>2</sub> reduction	¥777,00 5.4 metric tons/yea  ¥138,00 7.7 metric tons/yea  ¥192,00 1.2 metric tons/yea  ¥24,00 873.0 metric tons/yea  ¥24,031,00 99.0 metric tons/yea  ¥2,489,00 23.0 metric tons/yea  ¥3,489,00 21.0 metric tons/yea  ¥138,00 19.0 metric tons/yea  ¥138,00 19.0 metric tons/yea			
			Cost-cutting	ng ¥2,489,00 on 23.0 metric tons/yea ng ¥631,00 on 22.0 metric tons/yea ng ¥138,00			
	Swith to LED lighting	Hikone	CO <sub>2</sub> reduction	19.0 metric tons/year			
			Cost-cutting	¥447,000			
	Upgrading of commercial-use water booster pump	Taga	CO <sub>2</sub> reduction	2.0 metric tons/year			
			Cost-cutting	¥55,000			
	Green energy certificates		CO <sub>2</sub> reduction	724.0 metric tons/year			
			Cost-cutting	— yen			
	CO₂ absorbed by SCREEN's forest preservation activities		CO <sub>2</sub> reduction	1.2 metric tons/year			
	(Kyoto Model Forest)		Cost-cutting	— yen			

In the fiscal year ended March 31, 2019, we implemented measures at the Rakusai Site to reduce CO<sub>2</sub> emissions by approximately 1,770t-CO<sub>2</sub> per year, equivalent to about a 3% reduction in CO<sub>2</sub> emissions for the Group as a whole.

Note: Emission factors are those of the relevant year. Monetary amounts are calculated based on electricity costs.

# **Transportation and logistics**

## CO2 emissions from logistics operations :Mode of transportation

(t-CO<sup>2</sup>)

	2015	2016	2017	2018	2019
Vehicles	704	770	816	819	884
Ships	2	0.3	11.8	3.2	3.9
Railroads	1	0	0	0	0

# Reduction in CO<sub>2</sub> emissions resulting from modal shift :Product transportation

	Number of shipments						CO <sub>2</sub> reductions (t-CO <sub>2</sub> )				
_	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
Marine transport	21	13	85	39	23		5	78.4	26.8	13.8	
Rail transport	3	0	0	0	0	1	0	0	0	0	

# Number of trucks involved in transportation

	2016	2017	2018	2019
Number of trucks involved in product transportation	3,896	3,896	4,471	4,363
Number of trucks used for coastal shipping (to Kyushu)	13	86	39	23

# Environmental consideration for the transportation packaging

	Reduction in wooden materials, owing to revision of packaging sizes	Reduction of 31.38 tons in wooden materials used
	Promotion of ESPIE packaging using reinforced cardboard as packaging for the transportation of semiconductor and LCD fabrication equipment	Reduction of 163 tons in wooden materials used The rate of reduction in total use of wooden materials came to $6.3\%^\star$
2019	Reuse of cushioning materials at parts centers	Reuse of 1,338 kg of cushioning materials
	Reduction in wooden materials, owing to revision of packaging sizes	Reduction of 31.23 tons in wooden materials used
	Promotion of ESPIE packaging using reinforced cardboard as packaging for the transportation of semiconductor and LCD fabrication equipment	Reduction of 225 tons in wooden materials used The rate of reduction in total use of wooden materials came to 7.9%*
2018	Reuse of cushioning materials at parts centers	Reuse of 837 kg of cushioning materials
	Reduction in wooden materials, owing to revision of packaging sizes	Reduction of 25.75 tons in wooden materials used
	Promotion of ESPIE packaging using reinforced cardboard as packaging for the transportation of semiconductor and LCD fabrication equipment	Reduction of 356 tons in wooden materials used The rate of reduction in total use of wooden materials came to 11%*
2017	Reuse of cushioning materials at parts centers	Reuse of 927 kg of cushioning materials
	Reduction in wooden materials, owing to revision of packaging sizes	Reduction of 19.5 tons in wooden materials used
	Promotion of ESPIE packaging using reinforced cardboard as packaging for the transportation of semiconductor and LCD fabrication equipment	Reduction of 221 tons in wooden materials used The rate of reduction in total use of wooden materials came to 9.8%*
2016	Reuse of cushioning materials at Hikone CRC Parts Center	Reuse of 208 kg of cushioning materials
	Initiative	Result

<sup>\*</sup> Percentage decrease = Reduction in use of wooden materials due to use of ESPIE (reinforced cardboard packaging) / Total amount of wooden materials used in packaging for export x 100

# **Chemical substances**

# Substances subject to the PRTR Act (SCREEN Group in Japan)

		Usage				
Substance name	Cabinet order number	2015	2016	2017	2018	2019
Ferric chloride	71	46.2	40.8	44.2	49.3	47.4
Hydrogen fluoride and its salts	374	5.9	6.5	7.3	8.2	9.4

<sup>&</sup>quot;Ferric chloride" and "Hydrogen fluoride and its water-soluble salts" are subject to reporting under the PRTR Law. (Note: We reported annual use of more than 0.5 tons.)

(t)

				Amo	ount of mover	ment							
	Emissio	Emissions to the atmosphere			Emissions to the water system			Amount of movement of wastes					
Substance name	2017	2018	2019	2017	2018	2019	2017	2018	2019				
Ferric chloride	0	0	0	0	0	0	44.2	49.3	47.4				
Hydrogen fluoride and its salts	0	0	0	0	0	0	7.3	8.2	9.4				

<sup>&</sup>quot;Ferric chloride" and "Hydrogen fluoride and its salts" are all treated as waste.

(Note: We reported annual use of more than 0.5 tons.)

# PCB processing status (SCREEN Group in Japan)

(Number of units owned)

Туре	2015	2016	2017	2018	2019
High-voltage capacitors	0	0	0	0	0
Low-voltage capacitors	0	0	0	0	0
Fluorescent light ballasts	179	179	179	179	179
Transformers	0	0	0	0	0
Reactors	0	0	0	0	0
Capacitors*	0	0	0	0	0

Completed packaging and registration of 179 fluorescent light ballasts; currently awaiting disposal. \*1 Devices containing low-concentrated PCB.

# **Materials input**

# Total amount of input materials: Resource type (SCREEN Group in Japan)

(t)

					(-)
	2015	2016	2017	2018	2019
Total amount of input materials	12,033	13,544	14,250	13,887	13,779
Chemical substances	53	48	52	58	57

Waste/recycling							
Breakdown of waste emissions (SCREEN Group in Japan)							
	2015	2016	2017	2018	2019		
Total volume of waste emissions	1,924	1,755	1,961	2,495	2,592		
Volume of recycled waste	1,854	1,670	1,891	2,380	2,463		
Recycling rate (%)	96.4%	95.2%	96.4%	95.4	95.0		
Volume of waste for final disposal	70	85	71	115	129		

Total volume of waste emissions by business and manufacturing site					
	2015	2016	2017	2018	2019
SCREEN Group in Japan					
Business and manufacturing site					
Hikone	1,030	910	824	1,312	1,183
Sites in head office area	30	21	25	42	48
Rakusai	59	69	53	92	100
Taga	114	118	112	225	300
Yasu	201	221	148	170	184
Kumiyama	209	155	190	328	427
Sites in Tokyo area	18	36	16	20	22
Others	263	226	593	307	326
Total of business and manufacturing sites	1,924	1,755	1,964	2,495	2,592
Overseas Group companies	124	93	100	201	173
SCREEN Group	2,048	1,848	2,064	2,696	2,765

<sup>\*</sup> Tokyo area facilities include the Kudan Office (now closed) up to the fiscal year ended March 2017. The Shinagawa Office (newly opened) is included beginning with fiscal year ended March 2017.

Breakdown of external waste emissions					(t
	2015	2016	2017	2018	2019
Resources of value	879.9	732.6	817.6	1071.9	1041.4
Sludge waste	376.5	371.4	394.2	525.7	413.4
General-purpose paper	151.6	24.8	39.7	27.3	52.5
Waste plastic	208.6	131.9	144.5	186.4	249.8
Waste acid (special)	110.5	100.5	112.4	117.5	142.2
Cardboard	176.4	26.9	40.2	50.2	46.3
Cloth, wood scrap	110.6	107.3	134.5	124.2	204.0
Waste alkali	14.8	13.5	14.0	15.7	18.8
Scrap metal	347.8	19.8	29.7	30.2	85.6
Paper	177.0	43.8	44.1	75.4	105.6
Waste oil	20.8	21.4	24.6	59.1	56.4
Waste oil (special)	39.0	37.0	46.2	49.9	58.7
Ceramics, glass	17.5	10.8	28.9	19.1	18.5
Waste alkali (special)	19.1	20.0	27.4	27.6	21.5
Electrical wiring, PCBs	11.1	0.7	9.6	1.2	1.8
Burnable waste	58.9	7.0	8.6	9.0	8.1
Waste film	41.0	19.1	23.6	26.3	30.1
Batteries	4.8	0.8	0.9	0.8	1.4
Waste acid	0.7	1.7	12.3	63.8	24.9
Waste fluorescent lighting	0.8	3.6	2.2	3.1	1.6
Others	33.3	10.6	6.2	10.7	9.3

above				(
2015	2016	2017	2018	2019
154.4	152.7	190.4	198.5	304.4
302.8	246.5	262.8	499.1	381.7
131.5	123.0	167.1	251.8	258.4
74.4	69.2	72.5	32.1	25.7
23.3	0.0	0.0	0.0	0.0
1.4	0.8	2.1	0.9	1.3
124.6	130.3	117.3	76.2	29.6
67.5	10.1	5.5	13.4	40.3
	2015 154.4 302.8 131.5 74.4 23.3 1.4	2015         2016           154.4         152.7           302.8         246.5           131.5         123.0           74.4         69.2           23.3         0.0           1.4         0.8           124.6         130.3	2015         2016         2017           154.4         152.7         190.4           302.8         246.5         262.8           131.5         123.0         167.1           74.4         69.2         72.5           23.3         0.0         0.0           1.4         0.8         2.1           124.6         130.3         117.3	2015         2016         2017         2018           154.4         152.7         190.4         198.5           302.8         246.5         262.8         499.1           131.5         123.0         167.1         251.8           74.4         69.2         72.5         32.1           23.3         0.0         0.0         0.0           1.4         0.8         2.1         0.9           124.6         130.3         117.3         76.2

# Recycling rates by business and manufacturing site

site				(%)
2015	2016	2017	2018	2019
99.0	96.0	99.0	98.5	96.1
99.7	89.6	97.7	95.2	96.8
88.2	81.6	91.0	99.0	97.0
100.0	100.0	100.0	100.0	100
92.0	95.2	95.2	89.3	86.2
100.0	100.0	100.0	100.0	98.8
100.0	99.6	99.7	98.2	98.0
96.4	95.2	96.4	95.4	95.0
	99.0 99.7 88.2 100.0 92.0 100.0	99.0 96.0 99.7 89.6 88.2 81.6 100.0 100.0 92.0 95.2 100.0 100.0 100.0 99.6	2015         2016         2017           99.0         96.0         99.0           99.7         89.6         97.7           88.2         81.6         91.0           100.0         100.0         100.0           92.0         95.2         95.2           100.0         100.0         100.0           100.0         99.6         99.7	2015         2016         2017         2018           99.0         96.0         99.0         98.5           99.7         89.6         97.7         95.2           88.2         81.6         91.0         99.0           100.0         100.0         100.0         100.0           92.0         95.2         95.2         89.3           100.0         100.0         100.0         100.0           100.0         99.6         99.7         98.2

Green purchasing ratio					
Green purchasing ratio (SCREEN Group in Ja	apan)				(%)
	2015	2016	2017	2018	2019
Green purchasing ratio for office supplies	98.8	98.3	99.1	97.7	97.9

Water					
Water					
otal water withdrawals					(Thousands of m
	2015	2016	2017	2018	2019
SCREEN Group in Japan					
Service water	262	281	308	316	328
Industrial water	1,560	1,704	1,696	1,697	1,703
Total	1,821	1,985	2,005	2,013	2,030
Overseas Group companies					
Service water	19	36	29	50	72
SCREEN Group	1,840	2,021	2,034	2,063	2,102
Total water discharges (SCREEN Group in Japan)					(Thousands of m
	2015	2016	2017	2018	2019
Public water areas, sewerage	1,821	1,959	1,978	1,971	1,976
BOD and COD emissions					(1
	2015	2016	2017	2018	2019
BOD	0.8	4.9	3.8	3.5	3.7
COD	1.7	1.9	1.9	1.7	1.5

Note: Values reported for BOD and COD have been changed from measured values (mg/l) to discharged amounts (tons). Figures prior to fiscal year ended March 2015 are measured values (mg/l).

# Air quality

# SOx and NOx emissions (SCREEN Group in Japan)

(t)

	2015	2016	2017	2018	2019
SOx emissions	0.0	0.0	0.0	0.0	0.0
NOx emissions	8.6	2.3	2.6	3.4	2.4

### Reducing environmental impacts of products

#### Percentage of total sales and number of Green Products (products designated environmentally friendly)

		2015	2016	2017	2018	2019
Number of green products		116	119	133	136	143
Percentage of total sales (%)	Target	75	80	85	90	92
	Performance	92	92	94	95	94

Note: Green Products (products designated environmentally friendly): Products are compared against a standard product and are certified as Green Products if they pass five standards in the categories of energy saving, resource conservation, reuse or recycling, safety and chemical substance management, and information availability. "Reduction of energy used by 25% or more" is one certification criteria.  $Visit\ the\ following\ website\ to\ learn\ more\ about\ certified\ green\ products:\ www.screen.co.jp/en/sustainability/environment/products$ 

# **Green Value 21**

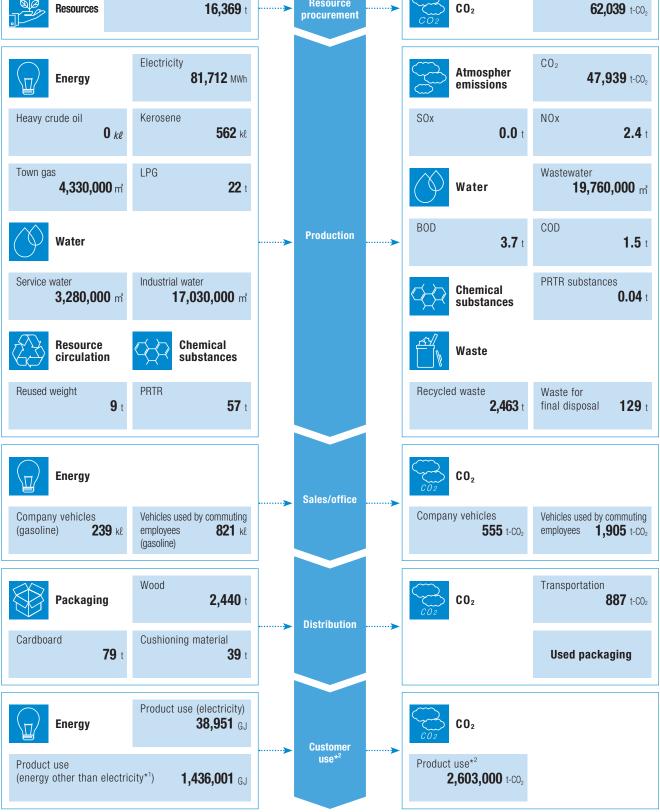
#### Green Value 21, Phase IV targets and performance (2018 to 2020)

Key M	easures	Description of Activities	2020 Targets	2019 Results
	I Environmental	Reduce CO <sub>2</sub> emissions	Reduce unit rate by 6% or $more^{*1}$ (emission intensity = 8.64)	35% reduction (emission intensity = 5.98)
management	conservation	Reduce energy consumption (in crude oil quivalents)	Reduce unit rate by 6% or $more^{\star 1}$ (emission intensity = 3.92)	26% reduction (emission intensity = 3.10)
		Reduce waste*2	Reduce unit rate by 6% or more*1 (emission intensity = 199)	7% reduction (emission intensity = 198)
		Promote biodiversity conservation	Implement action plans Note: Including measures to counter water-related risks	Implementation of SCREEN Forest preservation activities Kyoto Life and Culture Collaborative Rejuvenation Project: Implementation of treeplanting at head office Received 3 Stars in Shiga Biodiversity Award
	Product EHS	Contribute to controlling CO <sub>2</sub> emissions by products	Reduce unit rate by 6% or more*1 (emission intensity = 765)	12% reduction (emission intensity = 714)
		Expand sales of products certified as environmentally friendly	Make such products account for at least 95% of sales Note: 95% of internally certified Green Products	94%
		Train product safety experts	Certification rate of at least 2% * <sup>4</sup> Note: Internally certified Product Safety Experts	Certification rate 6% Note: Trained 76 product safety experts
		Comply with product-related laws and regulations	Implement action plans Note: Including measures to deal with substances contained in products, as well chemicals and gases	Begin surveys of contained chemical substances using chemSHERPA format in April 2018 Operation of HazardManager chemical gas management system
Disaster prevention &	Occupational safety and	Zero occupational accidents	Zero occupational accidents resulting in four or more lost work days	Four occurrences
safety	health	Reduce occupational accident points	Group as a whole: fewer than 250 points Note: Internal point system for occupational accidents	570 points
	Disaster prevention	Achieve improvements by conducting drills	Conduct practice drills at least once a year	Practices held for teams of the headquarters disaster response office
	BCM	Firmly establish system for operating by the disaster response office	Implement action plans Note: Including operation of Bousaiz* <sup>5</sup>	Use of the Bousaiz disaster information management system in times of naturals disasters such as earthquakes, torrential rain, and typhoons * Addition of disaster information report functions to Bousaiz
Health management	Health monitoring	Reduce sick leave	Reduce percentage of sick leave days taken to less than previous year	0.615% (previous year 0.590%)
		Promote elimination of passive exposure to tobacco smoke in the workplace	Implement action plans	Removal of indoor smoking areas at every sites
Integrated EHS	Management	Obtain certification for revised versions of management systems	Implement action plans	Preparation for shift to new standards for OHSMS and EnMS
		Develop human resources to promote EHS	Implement action plans	Implementation of training for the EHS Professional Certification System (Training 2 professionals, 19 experts, 23 specialists)
		Develop EHS information infrastructure	Implement action plans	Start of operation of the new EHS information system Green Management System in April 2018

Notes: \*1 Compared to the fiscal year ended March 31, 2014, per unit weight of product shipments

- \*2 Waste = waste discharged valuable resources recovered
  \*3 Compared to the fiscal year ended March 31, 2014, per sales unit
  \*4 Certification rate = number of certified persons ÷ number of designers

# Material Balance (SCREEN Group in Japan) INPUT OUTPUT Materials Resource **16,369** t $CO_2$ Resources procurement Electricity Atmospher Energy **81,712** MWh emissions



<sup>\*1</sup> Energy for utility (ultra-pure water, dry air, nitrogen, exhaust, cooling water) equipment.

<sup>\*2</sup> Use during a ten-year period by customers of production shipped in the year ended March 31, 2019. For the CO<sub>2</sub> emission factor for electric power, we use 0.000512 t-CO<sub>2</sub>/kWh, an alternative value for the grid electricity emission factor announced by the Ministry of the Environment, Ministry of Economy, Trade and Industry for December 2018.

# **Technical foundation**

# **Patents**

# Number of patents held by region (SCREEN Holdings and business operating / functional support companies)

	2015	2016	2017	2018	2019
Japan	2,127	2,098	2,115	2,196	2,232
North America	676	716	771	819	860
Europe	242	224	232	258	300
Asia and Oceania	1,115	1,184	1,300	1,489	1,740
Total	4,160	4,222	4,418	4,762	5,132

# Patent allowance rates (SCREEN Holdings and business operating / functional support companies)

(%)

	2015	2016	2017	2018	2019
Japan	79	79	91	88	90
Overseas	90	85	88	88	91
Total	86	82	90	88	90