

### Corporate Philosophy / Vision

Corporate Philosophy

Corporate Vision

# Integrity

# Value Matters

### Have Integrity and Sincerity

Unprecedented innovation, unprecedented value.

The Corporate Philosophy of the Dexerials Group states "Integrity Have Integrity and Sincerity."

We aim to be a corporate group where each employee can exercise his or her skills to the utmost for our customers and for society, and where we continue to build upon these certain results.

We have firmly established these ideals as a public corporation within society.

Furthermore, we have clarified our position that each employee can increase their own value, with an approach of always tackling new creation to deliver benefit to our customers, as expressed in our Corporate Vision "Value Matters Unprecedented innovation, unprecedented value."

"Integrity" and "Value Matters" We hold these two ideas close at heart as we advance onward.

#### Corporate Profile(As of March 31, 2017)

> Company name **Dexerials Corporation** 

>> Headquarters Gate City Osaki, East Tower 8F, 1-11-2 Osaki, Shinagawa-ku, Tokyo, Japan

Representative Director and President

Takashi Ichinose

>> Establishment

June 20, 2012

>> Capital stock

>> Employees

15,830 million yen

>> Consolidated sales

62,598 million yen

2,124

>> Principal operations

Manufacturing and sales of electronic components, bonding materials,

optics materials, etc.

> Major products

Anisotropic Conductive Film (ACF), Optical elasticity resin (SVR), Optical film, Surface mounted type fuse, Industrial adhesive, Double coated tapes, Single coated tapes, UV curable resin for optical disks, Thermal conductive sheet, Touch panel modules, Sputtering targets, Inorganic waveplate, Inorganic polarizer, and Solar Cell Conductive Film for photovoltaic modules

> Major manufacturing sites (in Japan)

Kanuma Plants, Tagajo Plant, Nakada Plant, Neagari Plant, and Tochigi Plant

#### Overseas group companies

**Dexerials America Corporation** 

Dexerials Europe B.V.

Dexerials (Suzhou) Co., Ltd.

Dexerials Advanced Material (Suzhou) Co., Ltd.

Dexerials (Shenzhen) Corporation

Dexerials (Shanghai) Corporation

Dexerials Hong Kong Limited

**Dexerials Taiwan Corporation** 

Dexerials Korea Corporation

Dexerials Singapore Pte. Ltd.

#### Members of the Board

Representative Director and President Takashi Ichinose Representative Director Hisashi Ando Director Satoshi Nagase Director\* Masao Hirano Director\* Koji Fujita Director\* Takashi Yokokura Director\* Kazuko Takamatsu

Audit & Supervisory

Board Member (Standing)\* Toshiya Satake Audit & Supervisory Board Member\* Toshifumi Takada Audit & Supervisory Board Member\* Rika Sato

\*External Directors and auditors as provided for the Corporation Law of Japan. (as of June 23, 2017)

#### **Editorial Policy**

This report covers the environmental and social activities of Dexerials Corporation, and has been published as a communication tool for this purpose.

#### Applicable Scope

This report covers offices of Dexerials Corporation both within Japan and overseas.

### Applicable Term

This report is based in principle upon the results of activities in fiscal year 2016 (April 1, 2016-March 31, 2017); however, some reports and data may refer to past or current information.

### Reference Guidelines

Environmental Reporting Guidelines (Fiscal Year 2012 Version), published by the Ministry of the Environment

Please also refer to the CSR Activities pages on the Dexerials Corporation website.

http://www.dexerials.jp/en/csr/

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Dexerials wants resolve problems to a sustainable

# The Business Environment Surrounding Dexerials

The world economy in the fiscal year 2016 continued to make an overall moderate recovery despite uncertainty over the future due to economic slowdown in China and emerging economies. In this business environment, the situation of the mainstay industries in which the products of the Dexerials Group companies are involved remained severe due to the maturation of the smartphone market and the reduced demand for tablet PCs, among other factors. However, we will continue to grow despite sudden changes, looking further ahead.

In the three-year Medium-term Management Plan "Change for Growth 2018," which began in the fiscal year 2016, the Group stated the following three key strategies: (1) Growth strategy: Significantly shift management resources, accelerating business growth in products with potential and in new business domains; (2) Competitive strategy: By maintaining competitive advantage, continue to secure stable revenue in mainstay products; and (3) Optimization of business structure: Construct organizational structure to support both of the growth strategy and competitive strategy. By steadily implementing these main measures, we will establish the earnings base required for sustainable growth, which leads to improved corporate value.

# Promoting CSR Based upon Our Corporate Philosophy and Vision

The Corporate Philosophy of Dexerials, "Integrity-Have Integrity and Sincerity," also links to our beliefs regarding CSR. I believe that it is our social responsibility to maintain integrity toward all stakeholders as a company.

to be a company where employees independently and that contributes society by creating new value.

We always think about how we can expand our business in line with this philosophy. Furthermore, in order to spread this philosophy across the entire Group, we have compiled the Dexerials Group Code of Conduct and established environmental and quality policies based upon this code.

Meanwhile, our Corporate Vision, "Value Matters-Unprecedented innovation, unprecedented value." is an expression of our corporate attitude of making a contribution to the world through the provision of new value. Each employee maximizes the use of the technology and expertise which we have accumulated through our business to date in order to solve issues by offering new valuable products. In this way, we contribute to the realization of a sustainable society.

### Initiatives for Diversity in order to Fulfill Social Responsibilities

In order to conduct global business activities, we comply with the law and the spirit of the law in each country and region in which we do business, and we conduct business activities with sincerity. It is also essential to create an environment in which diverse personnel can thrive, and to form a collective of independent employees working toward a shared goal. This will strengthen the management base and form a corporate culture with an abundance of energy, which will lead to the growth of the company.

In order to maximize a wide range of personnel while respecting diversity, we pursue initiatives in various areas: active participation by women, work-life balance, employment of overseas nationals, employment opportunities for older people, and employment for people

with disabilities.

In order to implement these initiatives, we recognize the importance of supporting our employees' health, safety, and work-life balance. As such, we are promoting reforms to working styles to promote positive and vigorous work among employees, and to create new values.

# Growth and social contributions from diverse perspectives

We are establishing a corporate culture in which individual employees can resolve problems through flexible thinking, develop their abilities, and demonstrate their experience and individuality so as to give their utmost to the company. We will use the diverse perspectives of diverse employees and provide new value that meets the demands of society, thereby creating a favorable environment for continual growth. In this way, we will continually contribute to greater richness and quality in both human society and the global environment.

We strive to communicate fairly and openly with all stakeholders, including customers, shareholders, and investors, as well as suppliers, regional communities, and employees. This report summarizes our environmental and social activities for the fiscal year 2016. I hope that this report will be an opportunity to further enhance communication with our stakeholders.

Representative Director and President

# Shaping the Future with Dexerials' Functional Materials.

Achieving New Growth through Technological Expertise and Extraordinary Ideas.



# Accelerating Value Creation through New Core Sites

Our aim is to contribute to the enhancement of the richness and the quality of both life and our environment through providing high value-added products based on core technologies in materials and processes built up in the field of

In October 2016, the new Tochigi Plant began operating.

As a core site, systems in the Tochigi Plant will be strengthened through proactive investment in the antireflection film business, where increased demand is expected. In terms of new domains, business expansion is being accelerated through the concentration of resources in the increasingly electric-based Automotive domain. We are also constructing systems to enable continuous growth by steadily developing business in the Environment and Life Science domains, which will lead to greater corporate value



Representative Director and Senior Managing Executive Office Hisashi Ando



**Tochigi Plant** Production items: Antireflection film Surface mounted type fuse Site area: 78.889m

This site is our Technology Center for R&D and produc-

1962

1963

Entered the double coated

1965

Entered the liquid adhesive

Started production of ferrite cores

magnetic heads and

Took the initiative in commercialization of a hot technology, Anisotropic Conductive Film (ACF).

1977

1987

Started production of

Started production of

1985

1994

Started production of

coating material for

optical disks

recording laver protection

1992

Started production of Self Control Protector (SCP) for Li-ion rechargeable



2001

2002

Started production of Antireflec

Changed company name to Sony Chemical & Information Device Corporation

2006

2014

Started production of Eye shield material for

2012

2010

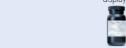
Entered the new energy field Started production of Solar Cell

Stock Exchange Started production of Solar control window film Albeedo and Water treatment agent suitable for inorganic effluent

2015

2016

 Start of operation at Tochigi Plant Particle-arrayed Anisotropic Conductive Film (ACF)







Started sales of inorganic polarizer



# Main products of Dexerials

Realizing thinner and lighter products with higher density through cutting-edge technologies.

### **Bonding Materials**



#### Anisotropic Conductive Film (ACF)

ACF is a conductive adhesive material which takes electric property to conduct two components vertically while it keeps mechanical performance by adhesion. Widely adopted into display panels and camera



#### General-purpose double coated tapes

Our Green tape series is manufactured using UV curing production method that does not use organic solvent during the adhesive coating process This product offers superb curvature behavior and static suitable for punching processes.



#### Thermal conductive sheet

Thermal conductive sheets conduct the heat generated from IC chips such as CPUs to the heat sink to protect devices' performance. We have silicone type featuring high thermal conductivity and flexibility, acrylic type, and carbon fiber type for applications that generate large amount of heat such as network servers of wireless





### Antireflection film

The Dry type antireflection films realize outstanding low reflection property and abrasion resistance and contributes to improved visibility of electronics products and automotive displays such as high visual transmittance and low reflectance.



instrument panels and car navigation. We also offer a lineup medical use featuring outstanding



#### Surface mounted type fuse

Electronic Components and Materials

Self Control Protector (SCP) that immediately interrupts overcharge or overcurrent in Li-ion rechargeable battery is a standard product of the secondary protection device. We also offer a lineup of Power Current Protector (PCP) as a fuse for high current for protecting electronic thinner and smaller type.

Environmental and New Energy Materials



#### Sputtering targets

Our sputtering targets are used for variety of electric device market including semiconductor chips, recording media of various optical disk formats and more. High purity and uniform structure contribute to higher productivity, it provides an extendable lifetime by our various shape-manufacturing technologies.



#### UV curable adhesives

Adhesives that cure rapidly when irradiated by ultraviolet and are suitable for fixing and lamination of high-precision components. Low cure shrinkage makes it suitable for the fixing of parts of optical pickups and camera



#### Double coated tapes for FPC Thermosetting tapes for FPC

Double coated tapes for FPC, FPC stiffeners materials and Thermosetting tapes for FPC, that required high temperature resistance (top 260 °C or higher), are widely used for the solder reflow process.



#### Impact resistant double coated tapes (Waterproof type)

The strong impact-resistant adhesive layer and elastic hollow balloon layer absorb shock if the devices dropped, effectively protecting the case from impact. These tapes are ideal for bonding of window frames on mobile devices, or fixing modules on cases that require waterproofing.



#### Inorganic waveplate / Inorganic polarizer

Optical devices that have high heat resistance, light resistance and durability, enabled by our unique nano-level processing technologies. Contributing to the improvement in reliability of optical units utilizing laser light

**Optics Materials** 

Optical elasticity resin (SVR)

Highly permeable and elastic resin is embedded in air gaps in devices such

visibility by embedding. We have a PSA-transformable Optical elasticity resin

(SVR) Hybrid type for small-to-medium-

sized flat panel displays (FPD) that is

transformed adhesion properties after

UV curing, realizes workability

equivalent to that of optical clear

as smartphones and tablet PCs to realize slim profiling and improved



#### UV curable resin for optical disks

UV curable resins for optical disk media, such as DVD and Blu-ray Disc. Suitable for forming a corrosion-protection coating for the recording layer and forming Blu-ray Disc media.



#### Solar control window film Albeedo

A new type of transparent solar control window film that reflects solar heat rays upwards. Albeedo features a special internal saw-tooth-shaped reflective layer that reflects only near-infrared rays (heat rays) upwards, reducing heat rays directed at the ground, thereby contributing to improvement of the thermal environment both interior and around buildings.



#### Water treatment agent suitable for inorganic effluent

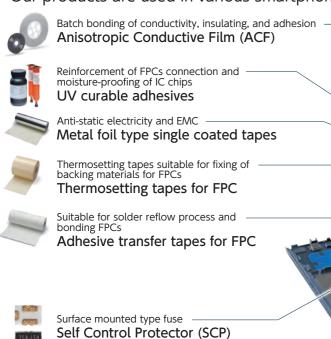
Water treatment agent for inorganic effluent discharged from facilities such as plating factories and semiconductor factories. As well as realizing excellent coagulation and flocculation performance through use of water-soluble polymers obtained from natural plant, the agent accelerates dewatering contributing to drastic reductions in the amount of chemicals used and sludge weight.



#### Solar Cell Conductive Film

Film-type conductive connecting material that bonds solar cells with the metal ribbon (tab line) that acts as a transmission line for electricity generated by cells Compared with conventional soldering, it enables lowtemperature connecting, thereby contributing to improved yield during module production by reducing thermal stress on cells.

### Our products are used in various smartphone components.





Excellent low-reflectivity Antireflection film



Thinner display panel and improved

Optical elasticity resin (SVR)

High impact resistance and waterproofing Impact resistant double coated tapes (Waterproof type)



High thermal conductivity and flexibility Thermal conductive sheet



Good sound transmission Dustproof net with adhesive for speakers

## **Corporate Governance**

The Dexerials Group abides by its Code of Conduct in order to meet the expectations of all our stakeholders, and is striving to strengthen and fulfil its corporate governance in order to enhance corporate value.

### **Basic Policies of the Dexerials** Group

#### **Dexerials Group Code of Conduct**

Our Group has established the Dexerials Group Code of Conduct, which all employees should observe, and is promoting thorough compliance and sound business activities.

The basic policies of the Code of Conduct are implementation of our Corporate Philosophy "Integrity: Have Integrity and Sincerity," compliance with laws and regulations, and accountability and appropriate communication with stakeholders, and ensuring internal control through use of the Compliance Hotline.

In addition, based upon the basic policies, we have established specific commitments which should always be upheld both by officers and employees. These include respect for human rights, product and service safety, environmental conservation, disclosure of corporate information, prohibition of harassment, prohibition of insider trading, measures against antisocial forces, and so on.

The Code of Conduct has been translated into English, Chinese and Korean, and is applied to all group companies in Japan and overseas.

### **Initiatives for Dissemination of** the Code of Conduct

#### Compliance Handbook

The "Compliance Handbook: Our Commitments" takes topics from within the Dexerials Group Code of Conduct which are of particular relevance to business activities and uses specific examples to explain concepts to employees simply.

It is distributed to all employees in Japan and overseas, and is used for employee training.

### **Compliance Education**

Each year, our Group conducts training for all employees using e-learning, covering topics such as compliance, prevention of insider trading, import and export compliance, information security, management of personal information, and prevention of harassment.

We also conduct stratified compliance training appropriate to role and rank, for example, targeting new employees, management, or executives. This training provides necessary knowledge regarding laws and risk awareness, and raises understanding of compliance and the Code of Conduct.

#### **Compliance Hotline**

The Dexerials Group has established internal and external (via attorneys) points of contact for the early detection of compliance risks, and to promote sound business activities based upon independent corrective measures.

### **Basic Approach to Corporate** Governance

The Group believes that the establishment of corporate governance is extremely important to meet the trust and expectations of all stakeholders and to improve corporate value.

Based on this approach, Dexerials has developed a corporate governance structure designed to ensure transparency and objectivity in management, whereby the majority of the Board of Directors consists of independent outside directors.

## Directors, Board of Directors, and Executive

Dexerials' Board of Directors consists of three internal directors and four outside directors; meaning

### Dexerials Group Code of Conduct

- 1. Basic policy
- Implementation of philosophy
- Compliance with laws and rules
- Relationship with stakeholders
- Use of Compliance Hotline
- 2. Conducting business with integrity and fairness
- Trust of customers and trade partners Product safety
- Fair competition • Fair procurement activities
- Compliance with import and export laws and regulations
- Restrictions on gifts and entertainment Records and reports
  - Prohibition of personal conflicts of interest

- 3. Sound work environment
  - Work environment which allows self-fulfillment
  - Equal employment opportunities
  - Sound labor practices Prohibition of
  - harassment
- confidential information Prohibition of insider trading Personal
- information Relationship with the media

4. Management of

assets and

information

Prohibition of

Intellectual

property

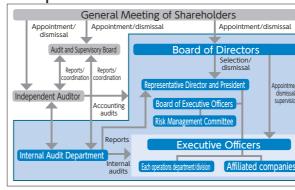
private use of

company assets

Management of

- 5. Being a good corporate citizen
- Environmental preservation
- Management of
- chemical substances
- Harmonious relationship with the community
- Safety and disaster prevention
- Measures against antisocial forces

### Corporate Governance Structure



that outside directors comprise the majority of board members. The outside directors each have extensive experience and knowledge as managers or experts in their field and are able to perform their supervisory functions from an independent perspective.

For business execution, nine executive officers are selected and authority is delegated to them. This system is designed to separate business execution from supervisory functions, improve management transparency, clarify management responsibilities, and lead to faster decision-making.

### **Audit & Supervisory Board Members and Audit Supervisory Board**

The Audit and Supervisory Board is comprised of three independent outside audit and supervisory board members, ensuring transparency, and performing a supervisory function for Dexerials' management.

The audit and supervisory board members exchange ideas with the representative director and president, attend meetings, review important documents, inspect assets, participate in department hearings, and investigate subsidiary companies, while coordinating with the Internal Audit Department and accounting auditors to enhance the effectiveness and efficiency of auditing.

### Internal Audits

The Internal Audit Department establishes an internal control system for Dexerials and Group companies, and audits the status of their implementation of and compliance with their respective compliance and risk management systems. The department uses the results of internal audits to regularly confirm the status of improvements, the details of which are reported to the representative director and president, audit and supervisory board members, and relevant departments.

### **Accounting Audits**

In regards to accounting audits, we have entered into an accounting audit contract with Price water

house Coopers Aarata LCC, who carries out accounting audits in accordance with the Companies Act and the Financial Instruments and Exchange Act.

### Risk Management

The Risk Management Committee has been established as the agency for Group-wide management of interdepartmental risk. The Committee is composed of 11 subcommittees in specialized fields, which gather and evaluate risk information and take countermeasures centering on risks related to business operations.

Risk managers regularly meet with each subcommittee manager to confirm the major risks in each subcommittee and the progress of appropriate countermeasures.

If a risk materializes, it is reported to the Risk Management Committee via the information transmission route stipulated by the company. The Board of Executive Officers then deliberates on the response and reports to the Board of Directors regarding risks that may have a serious impact on management.

### ◆Risk Management System





### Achieving continuous growth with an awareness of "connections"

**Executive Officer** General Affairs & Human Resources Division Head, Legal

Satoshi Ishiguro



In order to strengthen our capacity to deal with business environmental changes, we will promote initiatives for continuous growth by optimizing the business structure between 2016 and 2018. In this process, we believe it is important not only to enhance corporate governance structures and strengthen risk management systems, but also to steadily conduct daily management based on the actual situation, further enhance communication, and increase vitality within the company. Our strong awareness in this regard, and the changes in our actions, will lead to increased corporate value

**Environmental Measures** 

### **Environmental Philosophy**

Based upon our Corporate Vision, "Value Matters: Unprecedented innovation, unprecedented value," we are developing business which leads to new value and activities for environmental preservation, from the perspective of consideration toward the environment and resource recycling to ensure the sustainability of the diverse ecosystems, societies, and of the Company.

### Principles

The Dexerials Group promotes environmental management, ensuring that each and every employee makes full use of the technologies and skills at their disposal to achieve this, and strives to achieve and continuously improve upon planned targets in all realms of operation, in order to remain a company that is respected and trusted by society.

- 1. Dexerials actively engages in environment-related business, developing and supplying environmentally-friendly products on an ongoing basis.
- 2. Dexerials makes effective use of energy and resources by improving productivity and developing recycling-oriented operations.
- 3. Dexerials steadily implements activities to reduce environmental risk and manage the flow of chemi-

- cal substances, thereby striving to prevent pollution.
- 4. Dexerials gains an understanding of laws, ordinances, and regulations concerning environmental conservation, both within Japan and overseas, and complies with these.
- 5. Dexerials uses practical experience, education, and PR activities to improve environmental consciousness and expertise, and to cultivate personnel.
- 6. Dexerials promotes environmental conservation as a member of society and the community, as well as promoting collaboration and communication activities.
- 7. Dexerials strives to maintain and improve its management systems and systems for promoting activities, interaction, sharing, and revitalization.

#### What is environmental management?

These consists of management activities undertaken (1) in order to ensure the sustainability of all ecosystems and societies on the planet, (2) based on the perspective of recycling, (3) taking into account the limited nature of resources, disposal sites, and self-purification capacity, (4) endeavoring to achieve compatibility between corporate earnings and environmental conservation, and (5) ensuring the sustainability of the company itself.

(Source: Yuji Tateyama, Rieki wo umidasu "kankyou keiei" no susume (Recommendations for Profit-Generating Environmental Management), Sogo Horei Publishing, 2009, p.3)





The information in this report regarding CSR and environmental activities, including the Environmental Philosophy and Principles, is also available on the Company website. It is also possible to download a PDF version of this report from the website. Please make use of it as required.

http://www.dexerials.jp/en/csr/

## Environmental Management Structure/ Environmental Audit Structure

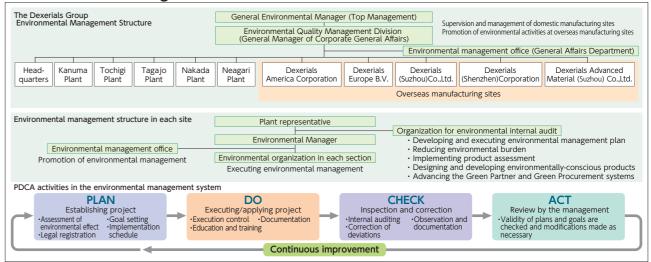
The Dexerials Group is engaged in environmental activities under a group-wide structure, based on the Environmental Philosophy and Principles. These activities are checked through internal audits and external audits conducted by a third-party organization.

### Environmental Management Structure

Based on the Environmental Philosophy and Principles, the Group has built an environmental management system that encompasses all offices and manufacturing sites both within Japan and overseas. The status of management system compliance, the status of system/process operations, effectiveness and validity undergo inspection by BV (Bureau Veritas), an independent

certification organization, which has led to the acquisition of ISO 14001 status. The Environmental Managers supervise and manage each plant in accordance with this system, and environmental activities are implemented throughout the group across all plants. In each plant, an environment office works on environmental activities with consideration for the differences in the various products and equipment handled at each plant.

◆ Environmental Management Structure



### **Environmental Audit Structure**

The Dexerials Group's environment audit system ensures the conformity, effectiveness and appropriateness of the environmental management system. Third party agencies conduct certification inspections (external audits), and Group plants inspect their own organization through internal audits.

#### **External Audits**

An annual maintenance assessment and a triennial renewal assessment are conducted by an outside

#### ◆ Environmental Audit Structure



agency to check the function of the environmental management structure.

#### **Internal Audits**

Every year, an inspection is carried out based on internal audit standards to confirm whether the environmental management system is functioning effectively.

### ISO 14001 Certification Status

The Group has attained ISO 14001 certification in five domestic sites and four overseas sites.

Environmental management system	Organization	Plant	Certification registration	
		Headquarters		
		Kanuma Plant		
	Dexerials Corporation	Nakada Plant	3538412	
		Tagajo Plant		
ISO14001		Neagari Plant		
	Dexerials	Europe B.V.	NL016090-1	
	Dexerials(Su	uzhou) Co.,Ltd.	. CNBJ311710-UK	
	Dexerials Advanced A	CNBJ311710-UK		
	Dexerials(Shenz	CNGZ301221-UK		

Dexerials Environmental and Social Report 2017

**Environmental Measures** 

# Overall Picture of Our Environmental Impact

The Group uses large amounts of energy, water, and chemical substances in its business activities, and emits CO<sub>2</sub>, waste materials, and water, which causes a burden on the environment.

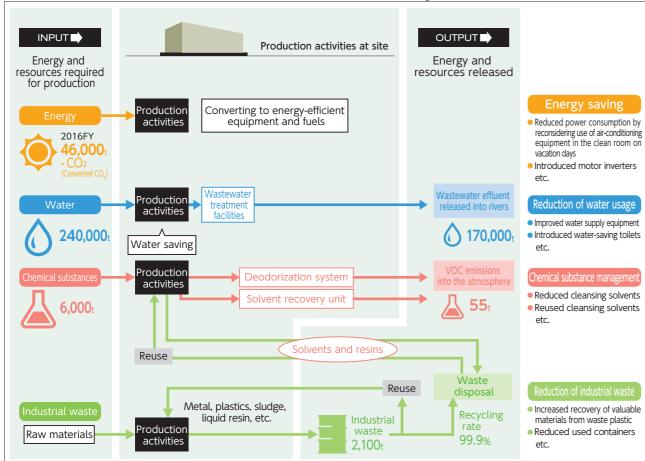
The Group uses renewable energy and undertakes energy-saving improvement activities in order to reduce CO<sub>2</sub> emission volumes. We also promote measures to reduce water usage and waste materials produced, while also promoting recycling. Other initiatives aimed at environmental preservation include reducing chemical substances used and reducing gas emissions into the

atmosphere.

We are expanding activities to reduce environmental burden, working to be aware of this burden in terms of environmental aspects related to production activities overall (input/output), undertaking environmental impact assessments, and setting reduction targets.

In the fiscal year 2016, we reduced our burden on the environment through improvements relating to 124 topics including energy usage, water usage, the volume of waste/reusable resources, and the volumes of chemical substances. Due to the increase in production volume and the start of operation at the Tochigi plant, however, there was a year-on-year increase in everything except waste.

### Overview of environmental burden and results of activities for reducing environmental burden in fiscal 2016



- W VOC: Volatile Organic Compounds
- \* We implemented measures to control emissions, and managed the results in order to comply with legal emission standards.

### Energy-saving measures (Initiatives for reducing CO<sub>2</sub> emission volumes)

Global warming is thought to have a severe impact upon the global environment and ecosystems. Of the greenhouse gases which cause this, it is possible to reduce CO<sub>2</sub> emissions through human intervention in the form of energy-saving activities. The Dexerials Group considers the implementation of energy-saving measures to be the most crucial issue in environmental preservation.

The Dexerials Group considers the implementation of energy-saving measures to be the most crucial issue in environmental preservation.

### Initiatives for the reduction of water usage (water supply volume optimization and conservation)

The Dexerials Group has reduced the volume of water used by making improvements to water supply equipment and by optimizing water supply volumes in manufacturing processes, while also ensuring that no water is lost in the process.

We have also improved facilities such as washrooms. Furthermore, we encourage employees to save water in daily activities to raise awareness of efficient water usage.

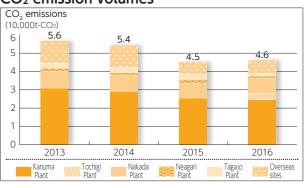
### Chemical substance management (Initiatives to reduce the volume of VOC emissions)

The Dexerials Group has introduced gas emission detoxification systems, and researches process improvements for target materials or the use of alternative materials. We also implement measures aimed at reducing the amount of organic solvents used, and abide by VOC emission standards as set out in the Air Pollution Control Act.

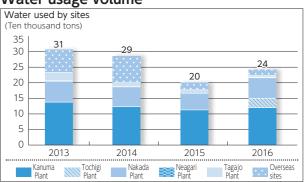
### Reduction of industrial waste (Reducing overall volume and increasing recycling rate)

The Dexerials Group is actively engaged in the reduction of the volume of industrial waste generated and in the reuse of waste materials. The rate of recycling is 99.9% across the Group. We are managing to increase product yield while also controlling the volume of waste materials generated. At the same time, we conduct the appropriate separation and collection of waste materials generated at each business site, together with waste solvents, acids and alkalis, plastic scrap, scrap metal and waste wood generated during the production process. We are implementing measures to effectively reduce, reuse, and recycle our waste.

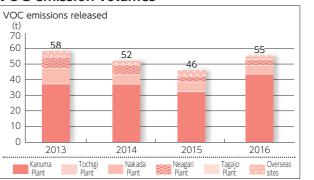
#### CO<sub>2</sub> emission volumes



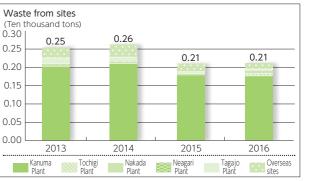
#### Water usage volume



#### VOC emission volumes



#### Industrial waste volume



<sup>\*</sup>The figures in the above graph showing CO<sub>2</sub> emission volumes were calculated based on the 2012 Environment Report Guidelines in this report, so they do not conform to figures reported prior to fiscal year 2016.

in fiscal 2016

**Environmental Measures** 

### The Dexerials Group has established and managed its own standards in relation to applicable items in laws, regulations, and ordinances concerning atmospheric and water pollution and so on at manufacturing sites in Japan and overseas.

Compliance with laws and regulations

We implement measures to ensure that we do not exceed regulatory standards under the Noise Regulation Act, Vibration Regulation Act, and the Offensive Odor Control Act within in our sites, and we have established and manage our own standards.

#### ■Domestic manufacturing sites Kanuma Plant

	Item	ι	Jnit	Lega standa		st	Our tandard	Qua	antity
Air	Soot	g/	′Nm³	< 0.3	3		<0.15	0.005	(0.005)
Pollution Control	Nitroger oxides	, b	pm	<180	)		<115	41	(76)
Act	Sulfur oxides		_	<8 (K va	lue)		<4	0.1	(0.4)
	VOC	р	omC	<140	0		<700	55	(210)
	Kar			ıma Plant No.1			Kanuma Plant No.2		
	Item	Unit	Legal standard	Our standard	Quan	tity	Legal standard	Our standard	Quantity
	Hydrogen ion concentration (pH)	_	5.8~ 8.6	6.6~ 8.1	7.2(7	7.4)	5.8~ 8.6	6.9~ 8.3	7.8(8.1)
	BOD*1	mg/l	<20	<15.3	3.7(1	3.0)	<20	<10.0	2.7(5.3)
Water	COD*2	mg/l	<20	<10.2	2.6(6	5.4)	<20	<10.0	2.5(4.8)
Pollution Control	SS*3	mg/l	<40	<20.0	1.9(6	(0.6	<40	<20.0	1.3(4.0)
Act N-hex	N-hexane (mineral oils)	mg/l	<5	<2.5	<1. (<1.		<5	<2.5	<1.0 (<1.0)
	Copper	mg/l	<3	<1.5	0.1(0	).2)	<3	<1.5	0.1(0.1)
	Iron	mg/l	<3	<1.5	0.1(0	).1)	<3	<1.5	0.1(0.1)

Offensive Odor	Item	Regulatory standards (property boundaries)	Quantity
Control	Odor index	18	<10 (<10)
Act	Odor strength	_	_

Colibacillus mg/l <3000 <1500 0.1(1.0) <3000 <1500 4.1 (16.0)

Nitrogen mg/l <60 <30.0 6.7(13.0) <60 <30.0 6.0(7.1)

sphorus mg/l <8 <4.0 0.2(1.1) <8 <4.0 0.4(1.9)

	Time	Unit	standards	Quantity
Noise	6:00~8:00	dB	70	51(57)
Regulation Act	8:00~18:00	dB	75	53(62)
ACI	18:00~22:00	dB	70	49(55)
	22:00~6:00	dB	60	48(57)
Vibration	Time	Unit	Regulatory standards	Quantity

20:00~8:00 Quantity: Result average (max. value)

#### Nakada Plant

	Item	Unit	Legal standards	Our standards	Quantity
Air Pollution	Soot	g/Nm³	<0.3	<0.03	0.003 (0.003)
Control Act	Nitrogen oxides	ppm	_	<90	56(62)
	Sulfur oxides	(K value)	<1.26	<0.126	0.03(0.033)

	Item	Unit	Regulatory standards	Our standards	Quantity
	Hydrogen ion concentration (pH)	_	5.8~8.6	6.1~8.3	7.7(7.9)
	BOD	mg/l	<300	<90	3.7(8.5)
Sewerage	SS	mg/l	<300	<200	36.8 (96.0)
Act	N-hexane (mineral oils)	mg/l	<5	<1.5	<1.0(<1.0)
	N-hexane (animal and vegetable oils)	mg/l	<30	<9	<1.0(<1.0)

Odor	100111		stand	aaras	Α,	
Control	Odor index	(	-	_		_
Act	Odor streng	th	1.	.8		0.2(0.4)
	Time		Unit	Agreeme standar		Quantity
Noise	6:00~8:00		dB	50		46(51)
Regulation Act	8:00~18:00		dB	55		43(50)
ACL	18:00~22:00		dB	50		49(50)
	22:00~6:00		dB	45		41 (45)
Vibration	Time		Unit	Agreeme		Quantity
Regulation Act	8:00~20:00		dB	60		26(32)
ACL	20:00~8:00		dB	55		27(34)

Quantity: Result average (max. measured value)

#### Tochigi Plant

	Item	Unit	Legal standards	Our standards	Quantity
	Hydrogen ion concentration (pH)		5.8~8.6° <sup>4</sup>	5.8~8.6	7.8(8.1)
	BOD*1	mg/l	<8(MAX10)*	4 <8 (MAX10)	1.9(3.7)
Water	COD*2	mg/l	<8(MAX10)*	4 <8 (MAX10)	3.7(8.1)
Pollution	SS*3	mg/l	<30*4	<15.0	1.3(2.4)
Control Act	N-hexane (mineral oils)	mg/l	<5*4	<2.5	<1.0(<1.0)
	Copper	mg/l	<3	<1.5	0.1(0.1)
	Iron	mg/l	<3	<1.5	0.1(0.1)
	Colibacillus	mg/l	<3000	<1500	12.0(140.0)
	Nitrogen	mg/l	<60	<30.0	8.8(39.0)
	Phosphorus	mg/l	<8	<4.0	0.5(3.4)
	Time		Unit	Regulatory standards	Quantity
Noise	6:00~8:	00	dB	70	52(54)
Regulation Act	8:00~18	:00	dB	75	51 (56)
	18:00~22	:00	dB	70	47(56)
	22:00~6	:00	dB	60	46(56)
Vibration	Time		Unit	Regulatory standards	Quantity
Regulation Act	8:00~20	:00	dB	70	32(35)
ACL	20:00~8	:00	dB	65	31(32)

Quantity: Result average (max. value)

### Overseas manufacturing site

#### Dexerials (Suzhou)

Offensive	Item	Unit	Legal standard	Our s standards	Quantity
Odor Control Act	TVOC*4	kg/h	<1.8	<1.8	0.002
Control Act	Ethanol	kg/h	<10	<10	0.047(0.087)
Environmental Noise	Item		Unit	Regulatory standards	Quantity
Pollution	6:00~22:0	0	dB	65	58(63)
Control Law	22:00~6:0	00	dB	55	52(54)

#### Dexerials Advanced Material (Suzhou)

Air Pollution	Item	Unit	Legal standards	Our standards	Quantity
Control Act	Ethanol	kg/h	<30	<30	ND

Quantity: Result average (max. value)

\*1 BOD: Biochemical Öxygen Demand \*2 COD: Chemical Oxygen Demand

\*3 SS: Suspended Solids \*4 Agreement standards

\*5 TVOC: Total Volatile Organic Compounds

### **Chemical Substance Managements**

### Response to the Pollutant Release and Transfer Register (PRTR) Law

The Group ascertains the results of release and transfer volumes of chemical substances based on the PRTR Law, and reports the total amounts for each year. Chemical substance release and transfer volumes for each plant in the fiscal year 2016 are shown below.

#### 2016 PRTR Substances (Japanese plants only)

Plant	Chemical substance	Release/transfer volume calculation (t)
	Acrylic acid and its water soluble salts	0.17
	2-hydroxyethyl acrylate	0.05
	n-Butyl acrylate	4.29
	Antimony and its compounds	0.26
lk	Ethylbenzene	0.48
Kanuma Plant	Xylene	0.61
	Vinyl acetate	0.09
	Toluene	20.80
	Hexamethylene diacrylate	0.51
	Nickel	0.06
	n-Hexane	0.75
Nakada Plant	Nickel compounds	0.73
INANAUA PIAIIL	Manganese and its compounds	0.35
Neagari Plant	Toluene	2.08

#### PRTR calculation/calculation method

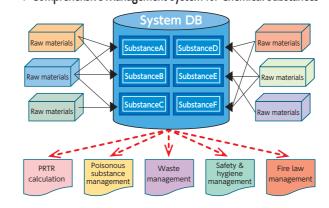
We use a method to divide data into release or transfer based upon the distribution coefficient of actual purchases.

### Introduction of a Comprehensive Management **System for Chemical Substances**

The Dexerials Group has introduced a management system whereby raw materials and chemicals purchased are recorded in a chemical substance database which can then be used to output the required data by item.

The system allows for a wide range of uses in surveying the state of chemical substances used at each site or business division. Using this management system, we can respond to relevant legislative amendments and strive to prevent compliance violations.

#### Comprehensive Management System for Chemical Substances



### **Minimizing Chemical Substance Risks**

The Dexerials Group has established the Chemical Substance Management Committee to ensure continued product compliance concerning chemical substances, to continue providing safe and secure products to our customers into the future, and to maintain the work environment, and is strengthening its systems for the appropriate, integrated management of the chemical substances used by the company.

As well as managing the use of chemical substances in the company's business activities, the committee checks and deals with regulatory aspects of matters ranging from the purchase of raw materials to product design, manufacture, distribution, import and export, to ensure that the company responds appropriately to recent legislative amendments relating to chemical substances, both within Japan and overseas.

In addition, because the chemical substances have a risk of adverse effects on the environment and health, we check management classes of all chemical substances used and conduct risk assessments in order to improve use management.

#### ◆ Chemical Substance Management Committee



#### Responding to Product Environmental Regulations

The Dexerials Group is endeavoring to respond to the European Community's REACH\*1 regulation, with the aim of undertaking safety evaluations of chemical substances. If a chemical substance, mixture or article contains more than the prescribed content of a specific substance (substance of very high concern, or SVHC) stipulated in the REACH regulation, it is necessary to provide the customer with information about this and to submit a notification to the European Chemicals Agency.

With regard to mixtures\*2, we have been working in partnership with Dexerials Europe, our European local subsidiary, and conducting surveys concerning the chemical substances that need to be registered under REACH; we have completed the preliminary registration and are now working toward full registration through the Substance Information Exchange Forum (SIEF).

Moreover, with regard to specific substances, we obtain responses from our suppliers in due course, via a survey method prescribed by Dexerials; based on the results, we will then determine whether or not our products contain those specific substances.

\*1 REACH stands for Registration, Evaluation, Authorization and

Restriction of Chemicals. It entered into force on June 1, 2007. \*2 Mixture: A combination of two or more chemical substances; among our product groups, this applies to such groups as liquid adhesives and thermosetting adhesive films.

**Environmental Measures** 

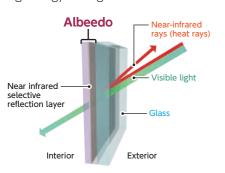
<sup>\*</sup>The Tochigi Plant began operating during fiscal 2016, so the management items are different to other plants

<sup>\*</sup>The Tagajo and Neagari plants are leased properties, and outside of

**Environmental Measures** 

### Solar Control Window Film Albeedo

With its reflective layer formed in the film on the nano-level, Albeedo selectively reflects nearinfrared rays that come from the sun in an upward direction instead of toward the ground. Albeedo assists in alleviating the urban heat island effect by reducing the heat rays which hit the ground by reflecting them upward, which improves the outdoor thermal environment. It also controls rises in room temperature, providing energy-saving benefits.





Addressing social issues with proprietary technologies

Product Section 2 Product Development Department 5 Environment & Life Sciences Business Unit Chihiro Nishikawa



The new Albeedo product that began shipping in December 2016 has the advantage of a better recursive ability than existing products for reflecting nearinfrared rays higher than the horizontal plane, as well as being easier to attach to windows. Based on the development team's strong desire to provide customers with a better product, the team used several of our technologies and resolved the many issues faced in materials development before reaching commercialization. We hope that our products will be more widely used, which will contribute to improving the global environment.

Water treatment agent which uses the strengths of plant material to improve coagulation, flocculation, and dewatering performance, while also reducing sludge emissions

### Water Treatment Agent Suitable for Inorganic Effluent

This water treatment agent is suitable for treating inorganic effluent such as water from plating factories, which contains metal ions, and water from semiconductor factories, which contains fluorine ions. It offers high coagulation and flocculation performance using the properties of water-soluble polymer obtained from natural plant materials. Its third function, improved dewatering performance, is achieved through the fiber structure of the plant material.

Consequently, it contributes to a reduction in the volume of chemical agents used in effluent water processing and the volume of sludge waste produced.



Aiming to enhance the richness of human society and the global environment

Sales Development Section 1 **Environment & Life Sciences Business Unit** Hiroki Buno



Water required in all industries is discharged as wastewater when things are produced. For the sustainable creation of things, it is ideal not only to treat wastewater in a way that does not place a burden on the environment, but also to reduce the amount of sludge created in the process. The water treatment agent developed by Dexerials solves both challenges. We will contribute not only to the sustainable growth of the economy but also to the preservation of the global environment by expanding our unique water treatment technology to the existing industry. This is the unprecedented value provided by Dexerials.

### **Green Tape G9000 Series**

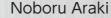
Green tape is adhesive tape manufactured using a solventless UV curing method for the adhesive coating process. We have developed products with functions to meet the diverse needs of our customers, including adhesion to curved surfaces, shock resistance, and recyclability. It has been used in a wide range of applications from LCD televisions, PCs, smartphones, consumer electronics to industrial devices. We have also commercialized our UV curable adhesives.





Reducing the burden on the environment with a UV curable manufacturing method

Development Section 2 Product Development Department 2 Film Products Business Unit



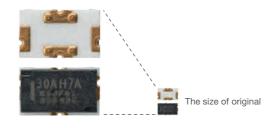


Green Tape was commercialized using a UV curable manufacturing method based on the idea of reducing the burden on the environment, and it is different to conventional adhesive tapes that use many organic solvents. During development, while we were still searching for the right materials and equipment, we achieved a performance equal to or greater than conventional adhesive tape as a result of repeated lab trials. From now on, we want to contribute to realizing a sustainable society through product development with new value that has never existed before.

### A halogen-free fuse that interrupts lithium-ion battery overcharge or overcurrent

### Self Control Protector (SCP)

This Self Control Protector (SCP) is a surface mounted fuse that protects products by interrupting overcharge or overcurrent in Li-ion rechargeable batteries mounted in tablet PCs and cordless electronic tools. Typically, products used halogenated compounds which emit dioxins when incinerated. Dexerials, however, has advanced ahead of the rest of the industry, and has been developing and selling halogen-free products since 2008, and is presently working to eliminate halogen from all of its products.





We respond to our customers' challenges with unique technology, leading to new growth

Development Section 1 Product Development Department 4 Electric Devices Business Unit

### Yuji Furuuchi



SCP is a proprietary product inspired by our strengths in printed circuit board technology and functional resin technology that responds to the needs of our customers for improved safety of lithium-ion batteries. SCP is becoming more widely used in devices with the expansion of the lithium-ion battery market. In the future, we will aim to provide products that contribute to a smart energy society by developing products that are more compact, low-resistance, and capable of handling high currents while working on the development of new functional devices using that technology.

Relationships with society

### **Customers**

So that customers can use our products with complete confidence, we work for product quality ensuring high levels of reliability and satisfaction. Furthermore, we participate in a wide range of exhibitions in Japan and overseas so that more customers will be able to see and know our products.

### Basic Quality Policy

In the spirit of its corporate vision "Value Matters: Unprecedented innovation, unprecedented value," the quality philosophy adopted by the Dexerials Group is to contribute to increased value for our customers' products through pursuit of technology and provision of high-quality products and services. We have also adopted a basic policy for quality that sets out the basic approach of our quality activities. In this way, we engage in a wide range of quality and product safety activities.

### **Basic Policy**

- 1.We deliver reliable and safe products and services.2.To ensure strict observance of all relevant laws
- 2.10 ensure strict observance of all relevant laws and regulations, we put in place and maintain a product compliance system.
- **3.**We undertake continuous risk reduction activity and advance preventive activity.
- **4.**Through on-the-job training and educational drills, we work to develop human resources and refine specialist skills and knowledge.
- **5.**We operate a quality management system and work to enhance its effectiveness.

### **Product Safety**

In line with our basic policy of making product safety the top priority, we test our products for compliance with a range of product safety standards and acquire the relevant certifications to ensure that products are safe for customers to use with complete confidence.

### Acquisition status of quality management system certification

Quality management system	Organization	Manufacturing site	Certification registration
ISO9001	Dexerials Corporation	Headquarters	3148969
		Kanuma Plant	
		Nakada Plant	
		Tagajo Plant	
	Dexerials Europe B.V.		NL012504-1
	Dexerials (Suzhou) Co., Ltd.		CNBJ311101-UK
	Dexerials Advanced Materials (Suzhou) Co., Ltd.		CNBJ311101A-UK
	Dexerials (Shenzhen) Corporation		CNBJ300478-UK
	Dexerials America Corporation		38206-2011-AQ-USA-RvA
ISO/TS16949	Dexerials Corporation	Kanuma Plant	235255 (IATF) 235250 (IATF) 235235 (IATF)
ISO13485	Dexerials Corporation	Kanuma Plant	MD665939

### **Quality Control**

Through communication with customers, the Dexerials Group shares customer needs and technology issues. It offers technology-based support and solutions, working toward the creation of products that reward customer confidence and create satisfaction.

All our manufacturing plants\* have received certification under the ISO 9001 international standard for quality management systems and strive to achieve quality targets and to improve the safety of the products as a platform for implementing quality plans, which are reformulated each fiscal year. In addition, we have acquired certification under the quality management system standard in the automotive industry (ISO/TS 16949) for the maintenance of high quality and reliability that is required for automotive components, and the quality management system standard for medical devices (ISO 13485) where stable quality and compliance are critical. We have also established a quality assurance system that can respond to customer requirements and regulations which are different in each business area.

In the event of quality issues that could impact stakeholders, including where serious quality issues threaten, a system is in place whereby the relevant corporate department promptly reports the situation directly to management so that appropriate response measures can be taken.

\*Acquired in April 2017 at Tochigi Plant.

# Voice

Aiming to improve product value for our customers

Senior Executive Officer
Production & Quality Division Head
Yukio Yamada



In addition to the electronics domain, we are expanding business areas to new domains such as Automotive, Environment, and Life Science domains. We flexibly respond to any change in the business environment to contribute to improved product value for our customers and we comply with related laws and regulations in order to enable customers to use our products with a sense of security, while also striving to pursue technology and to provide high quality products and services. To achieve this, we will continuously work on human resource development through quality training in order to elevate employee skills, including the improvement of the workplace environment so that our employees can work safely and securely.

### **Quality Training**

To cultivate human resources with a strong commitment to quality, we have drawn up quality training roadmaps specific to a wide range of different staff levels, from new employees to technical specialists. The associated training imparts not only knowledge of quality ranging from the fundamental to the specialist, but also includes training on the role of compliance and corporate ethics in quality.

### **Exhibitions**

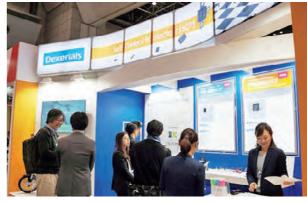
We participated in a total of 34 exhibitions in Japan and overseas in the fiscal year 2016.

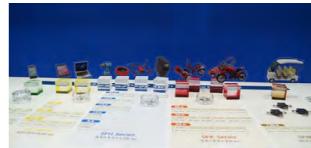
#### **Japan**

We participated in the 8th International Rechargeable Battery Expo included in the World Smart Energy Week 2017 which was held in Tokyo Big Sight from March 1 to 3, 2017, and exhibited surface mounted fuses such as Self Control Protectors (SCP),

and Power Current Protectors (PCP).





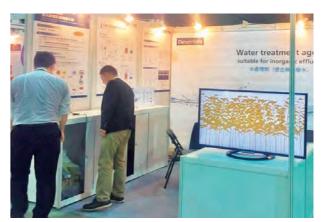


The Self Control Protector (SCP) is a fuse that protects lithium-ion batteries from two dangerous conditions, namely, overcharge and overcurrent. We introduced the features of the product in a manner that is easy to understand using videos.

SCP has become widely used in smartphones that support fast charging in recent years. We displayed a wide range of products not only for smartphones but also for a variety of applications at the exhibitions, and we received many questions regarding usage in automobiles from visitors.

#### Overseas

We participated in the "Taiwan Water" zone at the Taiwan International Green Industry Show (TiGiS), an exhibition with the theme of clean energy and the natural environment, which was held in Taipei Nangang Exhibition Center, Taipei, Taiwan from October 12 to 14, 2016, where we displayed water treatment agents (for inorganic effluent).



In addition, we participated for the first time in an automobile-related exhibition at the International Suppliers Fair (IZB 2016) which was held in Wolfsburg, Germany from October 18 to 20, 2016, where we introduced many of our automobile-related products such as antireflection film, optical elasticity resin (SVR), and anisotropic conductive film (ACF).

We used not only posters but also videos to intro-

duce our products in an easily understood manner at the booth. Overseas customers were highly interested in our products and we received many visitors.



transparent and reliable disclosure as well as sincere communication.

### **Disclosure of Corporate Information**

For Dexerials, timely and appropriate disclosure to shareholders and investors serves to ensure transparent and fair decision making as well as effective corporate governance functions. We also believe that it contributes to increasing corporate value by promoting public understanding, appropriate market assessment of the company and other measurements.

Therefore, we not only undertake disclosure required by laws and regulations, but also publish information proactively through a variety of channels, including the IR section of our website and shareholder reports, working in this way to create a system for highly transparent and reliable disclosure.

To ensure that our disclosed information can be easily understood and serves as a useful basis for investment decisions, we adopt reader-friendly language and formats in our materials, as well as provide an English-language version where the information is considered likely to be of particular importance to non-japanese shareholders and investors.



IR section of website

Relationships with society



Shareholder report (fiscal year

### **Profit Return Policy**

We regard return of profits to shareholders as one of the most important management tasks. With a recognition that increasing corporate value through investments for growth is the common interests of our shareholders, we have established a basic policy that we should first give priority to business investments leading to sustainable corporate value improvement and then make shareholder returns in line with profit growth with the target total payout ratio\*1 to consolidated profit before amortization of goodwill of approximately 40%.

We determine the actual amount of dividends by comprehensively considering factors such as the amount of investments required for growth, the estimated free cash flow\*2, the total payout ratio including share buyback and the importance of stable dividend distribution, while securing a sound financial base.

- \*1 Total payout ratio to consolidated profit before amortization of goodwill
  - Total payout amount (=Annual total dividends paid + Annual total share buyback)
  - Consolidated profit + Amortization of goodwill
- \*2 Free cash flow = Operating cash flow + Investing cash flow

### **General Meeting of Shareholders**

Ahead of the Annual General Meeting of Shareholders, we send out the meeting notices as early as possible, provide enhanced information, post documents on our website in both Japanese and English, and take other measures to ensure that shareholders have fair access to data, adequate information to exercise their rights, and sufficient time for reflection. Moreover, we are working to create an electronic voting environment, with a website where individual shareholders can exercise their voting rights online and an electronic voting platform for institutional investors.

### IR Activities

Below is an outline of investor relations activities for the fiscal year ended March 31, 2017.

Activity	Frequency	Contents
Interviews with analysts and Japanese and non-Japanese institutional investors	150 times	Conducted individual interviews and telephone conferences, as well as participated in investor conferences hosted by securities firms
Briefings for institutional investors and analysts	5 times	• Earnings briefings (4 times) • Business briefing regarding Antireflection film (1 time)
Briefings for individual investors	4 times	Participated in investment seminars for individual investors and conducted IR briefings held at securities firms' branches, participated by a total of 430 individual investors     In addition, two IR briefings were held with salespersons from securities firms
Posting IR materials on website	As appropriate	Posting of materials such as the consolidated financial results and supplementary materials, as well as shareholder reports, securities reports (quarterly), materials relating to the General Meeting of Shareholders, the IR event calendar, and so on.     For information considered of particular importance, English translations of the relevant press releases and materials are also posted



## **Suppliers**

We work for ethical and environmentally sensitive procurement in line with our Basic Approach to Procurement, which seeks to realize ethical procurement of materials, and our Management Standards for Environment-Related Substances, which is designed to ensure environment-friendly procurement.

### Basic Philosophy of Supply Chain Management<sup>\*</sup>

- 1. Emphasizing "fair business practices, transparency, and equal opportunities," the Dexerials Group's procurement is founded on relationships of mutual trust and cooperation with suppliers.
- "Fair business practices" means conducting procurement in accordance with prescribed policies and procedures.
- "Transparency" means avoiding any arbitrary actions.
- "Equal opportunities" means providing supplier with a level playing field.
- 2.Dexerials also emphasizes collaborative relationship with suppliers in such areas as strengthening technological competence, assuring and improving the quality of parts and maintaining competitive prices.
- 3.To preserve the global environment and realize a sustainable society, Dexerials strives for environmental management together with suppliers by observing the Environmental Philosophy.
- 4.To ensure compliance with laws, regulations, and social standards and to realize contributions to society, Dexerials works not only internally but also with suppliers to achieve practical results.

### Complying with the Dexerials Group Code of Conduct in Procurement

The Dexerials Group has adopted the Dexerials Group Code of Conduct, which sets forth the basic internal standards to be observed by all Group directors, officers and employees in order to emphasize and further strengthen corporate governance, business ethics and compliance systems throughout the entire Group.

The code includes basic policies concerning deals with suppliers such as "Fair Procurement" and "Gifts and Entertainment," and we are working for strict compliance with these rules.

### **Procurement of Parts and Materials Used in Dexerials Products**

The Dexerials Group has established a set of Management Standards for Environment-Related Substances in order to ensure the manufacture environmentally-sensitive products. These standards, which identify environment-related substances to be banned or reduced as well as their applications, serve as the basis for our product manufacturing.

Suppliers who cooperate with these standards are designated Dexerials Green Partners. In principle, the Dexerials Group procures raw materials and parts used for its products solely from suppliers who have qualified as Dexerials Green Partners.

#### Dexerials Green Partner Program



- \*1 Suppliers who meet the criteria are registered as Dexerials
- \*2 Registered suppliers are notified of their status as Dexerials Green Partners and the business relationship commences

#### About "Management Standards for Environment-Related Substances"

The Dexerials Group asks that all suppliers comply with the Management Standards for Environment-Related Substances. These standards define "controlled substances" contained in the raw materials, parts, or other element of our products that are judged by Dexerials to have a significant impact on the global environment or human health. These controlled substances are categorized as (1) substances to be banned immediately, (2) substances to be phased out, or (3) exempted substances. They are also subject to monitoring in order to prevent inclusion in our products or to confirm reduction of their use. Our aims here are to conserve the global environment and reduce our impact on the ecosystem.

Even if there are no specifications in these standards with regard to certain substances and uses, we comply with the appropriate laws of each country and region in connection to prohibitions and restricted use.

### Response to conflict minerals

The Dexerials Group promotes responsible procurement based on a policy of not using raw materials and parts that contain conflict minerals involved in human rights violations or similar issues. As a product supplier, we check for trace levels of the relevant minerals in our products and provide the appropriate information to customers.

Dexerials Environmental and Social Report 2017

## **Local Communities**

the development of various regions, particularly those in which it has business sites.



year agreement with the local government of Kanuma City in

Tochigi in an afforestation initiative called "Innovation Forest." In response to these corporate afforestation activities, we received carbon offset certificates from Tochigi Prefecture for a total of 94.47 t-CO<sub>2</sub>.



Kanuma City "Forest of Hope and Innovation"





In the five years of the "Innovation Forest" activity in Yaita City, which began in 2010 and came to an end in March 2016, the 1500 trees planted in a 0.5 ha site have grown profusely to become an almost self-sustaining forest. Currently, management of the forest has been handed back to Yaita City.



### **Activities to Restore Greenery in Ashio**

Since 2009, we have supported NPO Grow Green in Ashio in their initiative to plant one million trees in the mountains of Ashio. As a member of the NPO, we have assisted afforestation through nurturing saplings, planting, weeding, thinning, and so on. Restoration work of the Ashio forest has been ongoing for approximately 100 years. However, only a small area has yet been rejuvenated. Continuous effort by many people is needed in order to restore this forest. We are supporting these activities in a variety of ways.



Ohatazawa (25 years ago)



In April 2016, we participated in the "Spring Ashio Tree-Planting Day" held every year by the same organization, and employees volunteered to help run the

CNVIRONMEN

Environment

In November 2016, 29 new employees that joined the company in the fiscal year 2016 participated in tree planting activities in Ashio

copper mine as part of training. The Dexerials employees visited Ashio copper mine, which is known to have caused pollution in Japan, in order to visually inspect the serious damage caused by pollution. We believe this was an important

opportunity to learn about the social responsibility in the company's activities. We will continue to proactively work on environmenta conservation activities in order to achieve a sustainable society





around our plants so as to encourage environmental awareness not only among employees, but also with local residents...





### Nakada Plant

The Nakada Plant implemented a zero-garbage campaign in May 2016, and carried out clean-up activities in the area around the plant in

September 2016 as part of Roads





### Dexerials (Shenzhen)

Dexerials (Shenzhen) Corporation carried out local cleaning activities





### Sponsorship of Sports Teams

### Sony Sendai Football Club (Sony Sendai FC)

Since fiscal 2013, we have been sponsoring Sony Sendai FC in Sendai, home to the Tagajo Branch. Through this sponsorship, we aim to promote amateur sports and to invigo-

> rate the local community, while also promoting the healthy upbringing of young people.

In connection to this, the Dexerials Cup 14th Miyagi Prefecture Champions Cup U-12 Tournament was held at Matsushima Football Center in Matsushima, Miyagi on November 26 and 27, 2016. The championship was won by the Aoba Training Center, whose success was celebrated when

the team received a certificate of merit and the Dexerials Cup from Executive Officer Ishiguro, and every member of he award winning team received a personal medal. We will continue to upport the smiling faces of children o dream for the future.



### Utsunomiya Blitzen

Since 2015, we have been sponsoring Utsunomiya Blitzen, a community-based professional cycling road race team from Tochigi, home to the Kanuma Plant and Tochigi Technology Center. This sponsorship aims to vitalize the local community and promote cycling sports. At Utsunomiya Criterium, the opening round of the J Pro Tour held at the special circuit track in Kiyohara Industrial Park in Utsunomiya City in March 2016, four employees volunteered to keep guard at the main parking area and contributed to holding the event safely. The Dexerials logo is featured on the center of the uniform of the winning cyclist, Yuzuru Suzuki of Utsunomiya Blitzen.

A total of nine employees and ex-employees participated as volunteers in the Nasu Kougen Longride with Nasu Blasen and Utsunomiya Blitzen 2016, held mainly in Nasu, Tochigi in July 2016. The employees contributed to event management providing guidance to allow participants to ride safely and confirming that all participants had successfully made it to the goal.



In December 2016, "Dexerials presents Utsunomiya Blitzen Cycling School" was held for children of elementary school age and younger in collaboration with Utsunomiya Blitzen at Utsunomiya City Forest Park. In the morning, the aim was to ride bicycles without training wheels, and in the afternoon session, training was given to enjoy riding bicycles safely. A total of 22 local children participated.



**SPORTS** 

# Hosting a work experience visit from a junior high school

Tochigi Prefecture plans and implements career experience programs for students with the aim of creating opportunities for students to think about their vision of the future,

including views of work and careers, by deepening their understanding of society and careers. In agreement vith the above purposes, we actively host work experience activities for students. In the fiscal year 2016, three students from Kanuma-kita Junior

High School visited the Kanuma Plant and experienced manufacture and development work. In addition to the work

experience, they participated in tree-planting activities conducted by Dexerials to contribute to the environment and community, which gave them an opportunity to learn the necessity of contributing to society as a company. We will work hard on cultivating the next generation while deepening our relationship with the community through





### Participation in Tome Eco Forum

Six companies from Tome City have assembled to conduct activities in the Tome Eco Forum, which was initiated in 2008 with support from the Miyagi Prefecture Environment Coordinator. The Forum was held again in the fiscal year 2016, and the companies shared information and held discussions about environmental activities, including energy and resource conservation.



### Participation in the **Industry Festival**

In October 2016, we exhibited at the 12th Tome City Industry Festival held at the Tome City Hasama Gymnasium and Nakae Central Park. We exhibited product samples and held panels introducing our proprietary technology. In the interactive section, LED lights and optical fibers were used in the "Let's Make Constellation Illuminations" activity, which was very popular with the children who attended.





In 2016, employees at Dexerials Korea, our affiliate company based in South Korea, sold unwanted items such as clothing, shoes, and home appliances to



volunteer groups and donated the profits.

People with disabilities in the volunteer groups then processed these goods for re-use. These activities were conducted with the objectives of recycling goods, contributing to job creation for those with disabilities, and raising funds. Dexerials Korea will continue to take an interest in such proactive engagement in the future.



Dexerials Environmental and Social Report 2017

Relationships with society

# **Employees**

satisfaction, promote diversity, and provide support for a range of careers. In addition, we aim to be an attractive employer by holding events that the employees' families can also attend.

### Workplaces with Job Satisfaction/ **Promoting Diversity**

### Positive action for the appointment and development of female employees

Our female employees account for around 18.3% of all staff, and as of March 2017, their average length of service was 19 years and 7 months, against 18 years and 8 months for males, indicating that female employees also pursue long-term careers. Since 2014, we have held lectures for managerial staff on promoting active female participation and work-life balance. Combined with in-house awareness-raising activities, strict enforcement of "no overtime days" and other initiatives, this is designed to promote workstyles that make efficient use of regular work hours and support employees combining work with childcare. We have also made a declaration of support for the success of women based on the Positive Action promoted by the Ministry of Health, Labour and Welfare. http://www.positiveaction.jp/declaration/add/search\_detail/?id=1527

### Achieving Work-Life Balance Childcare

We have put in place a system to support a successful combination of work and family life that exceeds legal requirements in terms of childcare leave and other benefits. We have introduced systems of flexible working hours and shorter working hours for childcare so that both men and women can work flexibly. Meanwhile, we have set up a work skills improvement support system for employees on childcare leave, and such employees can use this system to continue to access internal information, improve their knowledge, and communicate with superiors while remaining at home. For instance, the system enables

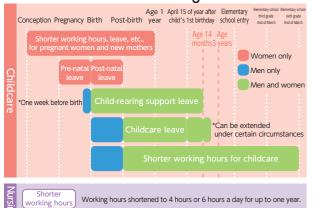


"Kurumin" mark. supporting childcare



Tochigi Declaration

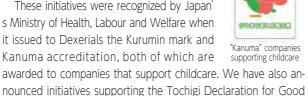
 Main systems to support employees combining work with childcare or nursing care



Working hours shortened to 4 hours or 6 hours a day for up to one year.

e-learning courses to be taken by smartphone and enables connection to the company intranet.

These initiatives were recognized by Japan' s Ministry of Health, Labour and Welfare when it issued to Dexerials the Kurumin mark and Kanuma accreditation, both of which are



Work and Good Families, and Work and Home Compatibility. http://www.pref.tochigi.lg.jp/f06/work/koyou/roudou/dexerials2.html

#### Nursing care

Employees with family members requiring nursing care can take advantage of a shorter working hours system and a system of one year's leave. These measures are designed so that no employee has to give up work for nursing care duties.

#### **Employment of overseas nationals**

We are expanding its global business, and the Group now earns 62% of its net sales overseas. As such, even Dexerials business locations in Japan need personnel capable of functioning in a global context. We are proactively involved in internships, and people of other nationalities can use this opportunity to gain employment experience. Recent recruitment results show that three foreign nationals were newly employed in the fiscal year 2015 and another three in the fiscal year 2016.

Meanwhile, we provide training through English, give intercultural training to employees at their assigned business site, offer vegetarian options in the employee canteen, and take other steps to ensure an appropriate workplace environment. These measures mean that employees can work in a supportive atmosphere without encountering barriers of nationality,



job in April. Now, I feel that I can work with peace of mind thanks to the support of my family and the workplace, and thanks to the advice from senior colleagues who are also mothers. In addition to making full use of the in-company support system and the childcare system during my pregnancy until I returned to work. I was reassured by the fact that my husband who works at another company also took short-term childcare leave. I would like to convey my experience to everyone in the company so that both men and women can raise children with peace of mind by using these systems.

#### Employment of older people

Out of consideration for employees who wish to work well beyond retirement age, and also to meet the company's labor requirements, we revised the system so that all employees so wishing would be employed up to age 65, thus creating a system where staff can be confident of continued employment after retirement age. We create structures that allow people to find a place within the company after retirement where they can carry on contributing professionally in their senior years, whether by continuing to use their accumulated skills or taking on a new field of activity.

#### Promoting employment of people with disabilities

We employ people with disabilities in a wide range of areas, from office work through to manufacturing. In workplaces that employ people with hearing impairments, we give consideration to the work environment. For example, bosses and colleagues learn sign language and fingerspelling, and Indicator lights are installed for safety and disaster prevention purposes.

In view of the importance of increasing diversity within the company and proactively fulfilling social responsibilities, Dexerials Kibou Corporation began operating in 2015 as a certified special subsidiary to promote the employment of people with disabilities. Work environments are being prepared so that people with disabilities can work with peace of mind. Currently, Dexerials Kibou currently has 25 employees (of whom 12 have disabilities) working at Dexerials business sites in cleaning, garden management and other business activities. The percentage of employees with disabilities in the Group is 3.2%.

### Growth support (human resource development)

#### Human resource development basic policy

We have established a basic policy for human resource development. We want employees to work autonomously and we provide various activities to support them.

### Dexerials Human Resource Development Basic Policy

- We believe that the growth of each and every employee is of the utmost importance.
- We want employees to continue growing by learning for themselves, thinking for themselves, and acting for themselves.
- We conduct activities to support the growth and career development of employees.

#### Career Support

In order for individual employees to acquire a specialty and become personnel that can create new value, we have introduced a "job family" system. In order to enhance career development in each job

family, employees are assigned to one of four job families: technology and development, manufacturing, sales, or planning and management. In each job family there is a human resource development manager, and various types of support are provided, including training to enhance a specialty, and career interviews so that employees can take the lead in forming their own careers. In the first year of employment, senior employees (tutors) conduct follow-ups with new employees, and then career design training is undertaken every year. Career support activities are therefore provided for employees at every stage.

#### Training system

We work to develop personnel who can take on responsibilities in the future through diverse training programs that create an environment where individuals can demonstrate their capabilities. In addition to business skills training and stratified education program (training), we provide training and selfdevelopment programs for employees to acquire the knowledge and skills required in each job family.

Meanwhile, preventing harassment and ensuring compliance are among the subjects of various e-learning programs that Dexerials offers year-round. Going forward, we are committed to cultivating human resources that will carry the next generation, aiming to strengthen global human resources and technology development and enhance our organizational capabilities.

#### Company Training Systems



### Other

#### **Satchel Presentation Ceremony**

Every year, to celebrate our employees' children's entry into elementary school, we present them with school satchels. The children are invited with their families to one of our business sites, where the presentation is made in person by the company president or a

corporate officer. In fiscal 2016, a total of 68 elementary-school first-graders were given satchels. Also, a tour of each workplace and factory was conducted after the ceremony.



# Occupational Health and Safety, Disaster Prevention The Dexerials Group implements employee training, along with reinforcement and improvement work to facilities, in

an effort to prevent or minimize damage from disasters and accidents which potentially could have a serious impact on business. We conduct various activities so that employees can work in a healthy and hygienic environment.

### Occupational Health and Safety. **Disaster Prevention Principle**

The Dexerials Group's Occupational Health and Safety, Disaster Prevention (OHS) Principle states that "We are conscious that safety is imperative to the creation of new value and to quality enhancement, and will continue to provide safe and healthy business sites.

### Occupational Health and Safety, Disaster Prevention Policy

Based upon our OHS Principle, we promote safety activities under the banner "Safety FIRST Action" emphasizing autonomous work, collaboration, and the three "gen" principles of "genba, genbutsu, genjitsu" (lit. actual place, actual product, actual facts). We aim to raise safety awareness at all work sites and to prevent major disasters.

### ◆The FIRST Concept



and fires and explosions.

### Occurrence of Workplace Accidents

In the fiscal year 2016, there were three workplace accidents that resulted in loss of work time, and five accidents that did not result in a loss of work time. We conduct investigations, analyses and improvements with regard to the accidents that occurred, and then share the information throughout the company to prevent reoccurrence. While preventing serious accidents, we will carry out activities to find and eliminate risks such as dangers and health hazards in the workplace, and we will make further improvements for safe workplace environments.



### **Business Continuity Planning (BCP)** Activities

Natural disasters such as earthquakes and typhoons and communicable diseases such as novel influenza may cause damage to the personnel, equipment and lifelines required for work. The Group has established a Business Continuity Plan (BCP) in order to minimize damage during emergencies and return to production activities through prompt restoration activities. We have clarified internal organizational roles, including the BCP Center, with regard to each function for the supply of products to customers, such as materials procurement, production and distribution, employee safety checks, and data systems. A restoration manual has been prepared based on their expected responses and actions. We aim to more strictly enforce the BCP in the future, and we are working to improve crisis management capabilities and business continuity capacities.

#### ◆ Business Continuity Plan (BCP) Organizational **Structure and Functional Roles**





### **Equipment disaster prevention**

We work to prevent the occurrence of accidents that may seriously affect business activities during disasters. However, if such an accident does occur, we make systematic improvements according to the urgency and importance of the disaster risks, with the aim of minimizing damage.

#### **Tochigi Plant Anti-Seismic Design**

When the Tochigi Plant went into operation in October 2016, the necessary anti-seismic repairs were carried out after verifying the earthquake resistance of the buildings in the plant. In order to ensure the safety of employees during disasters, P-wave earthquake sensors were provided in elevators as a confinement preventative countermeasure.

Furthermore, as a preventive measure against secondary disaster accompanied by earthquakes, we have installed anti-seismic reinforcements in building exteriors and in-ceiling piping to prevent leaking due to breakages of pipes and ducts.



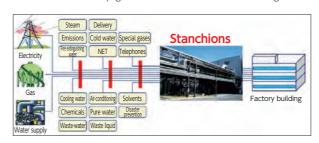
Example of anti-seismic reinforcement of piping using reinforced fixings

### Countermeasures for earthquake damage to piping

In order to prevent chemical leakage from piping, Kanuma Plant and Nakada Plant are double-layering their pipes.

In addition, common support frames known as stanchions\*, which support piping and wiring in plants, pose a risk of collapsing in an earthquake, causing leakage of solvents or waste fluids. For this reason, earthquake countermeasures have been implemented by calculating the seismic resistance (IS value) after closely investigating and analyzing the structure frame, load weight and so on based upon the results of an earthquake risk assessment.

\*Stanchions: Equipment that supports piping and the like that provide electricity, gas and water, etc., between buildings.



### **Education and training**

### Protection inspections of the use of environmentrelated substances

At the Nakada Plant, in order to ensure the continued elimination of accidents related to handling organic solvents, we carry out protection inspections and we annually check the usage of volatile organic solvents and the measures for the prevention of environmental accidents.



### Solvent leakage response drill Japan

At Kanuma Plant, each business unit carries out drills in line with its specific risk profile, and uses any shortcomings or issues identified as feedback to improve its response to leakage incidents. Repeated drills have worked so far to maintain the high level of responsiveness to leakage incidents.





Emergency response drill for indoor solvent leakage (Kanuma Plant)

#### Overseas

At Dexerials Group overseas plants, leakage drills are carried out regularly to improve employee skills.





Emergency response drill for the event of an indoor liquid chemical leakage (Dexerials (Suzhou) Co. Ltd.)

### Physical examinations

Overwork physical examinations are conducted every month as a countermeasure against excess work in addition to regular physical examinations and special physical examinations based on the Industrial Safety and Health Act. Applicants over the age of 35 undergo thorough medical check-ups, which leads to the early detection and prevention of cancer.

Based on the results of thorough medical checkups and physical examinations, industrial physicians and public health nurses offer guidance to individuals or groups. We strive to improve lifestyle diseases and prevent illness by inviting external lecturers to provide special health information in classes on metabolic syndrome. In addition, in-company dental checks are conducted every year. Check-ups and brushing instructions from dentists lead to the early detection or prevention of oral diseases among employees.

### Mental health countermeasures

#### Stress checks

Based on the revised Industrial Safety and Health Act, all employees have been undergoing stress checks since 2016. The checks raise individual employees' awareness of stress and how to deal with it. The health and safety committee also notifies industrial physicians of the results of group analysis. Problems are ascertained through detailed analyses, which leads to better workplaces and job satisfaction.

#### Mental health classes

Managers take line care classes every year. In fiscal 2016, industry doctors and external clinical psychologists were invited to provide classes to refine the communication skills of managers. The participants said that they wanted to create a better work environment through everyday communication.



In order to promote self-care among individual employees, industry physicians provide self-care classes. Individual classes help employees to acquire coping measures for more personal problems and to prevent mental issues.

#### External counselling

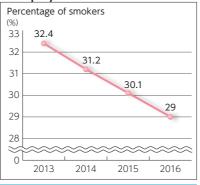
In order for employees to be rid of worries and to create a system for immediate consultation, a free external counselling office has been established. By establishing various consultation systems inside and outside the company with industry doctors, public health nurses and clinical psychologists, we promote mental health countermeasures in the "Four Cares" as indicated in the Ministry of Health, Labour and Welfare's guidelines for promoting and maintaining the psychological health of employees.

### Smoking prevention activities

In addition to creating an environment that discourages smoking, including banning indoor smoking and limiting time spent on smoking breaks, we cooperate with health insurance organizations to conduct activities that support employees who want to quit smoking. Specifically, we help employees to quit smoking by funding applicants on programs at smoking cessation clinics. As a result, approximately 60% of the participants in these programs have successfully quit smoking.

These initiatives have resulted in a continuous decrease in the percentage of employees who smoke, which dropped by 3.4% between fiscal year 2013 and fiscal year 2016.

### ◆ Trends in percentage of Dexerials employees who smoke

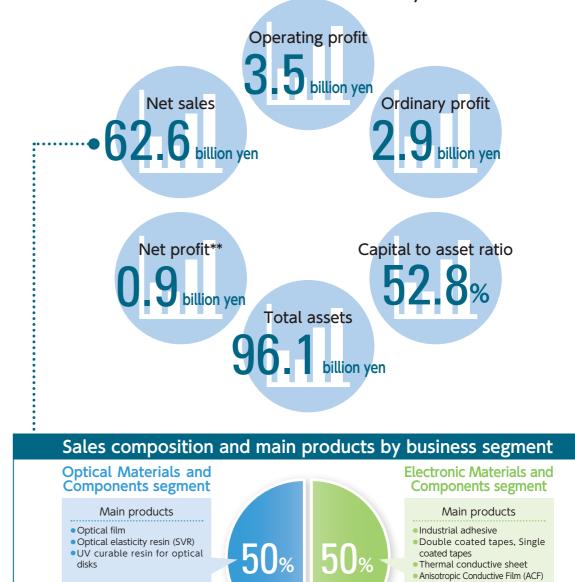


### **Blood donation activities**

Each plant conducts blood donation activities twice a year, and many employees cooperate by giving blood. In the fiscal year 2014, in the 50th National Assembly for Promoting Blood Donations, the Kanuma Plant was presented with a certificate of merit by the Ministry of Health, Labour and Welfare. We will continue to promote this volunteer activity.

# **Financial Information**

FY2016 Consolidated Financial Results Summary\*



### Non-Japan sales ratio



### **R&D** Expenses



Capex

Solar Cell Conductive Film for

Surface mounted type fuse

photovoltaic modules

Sputtering targets

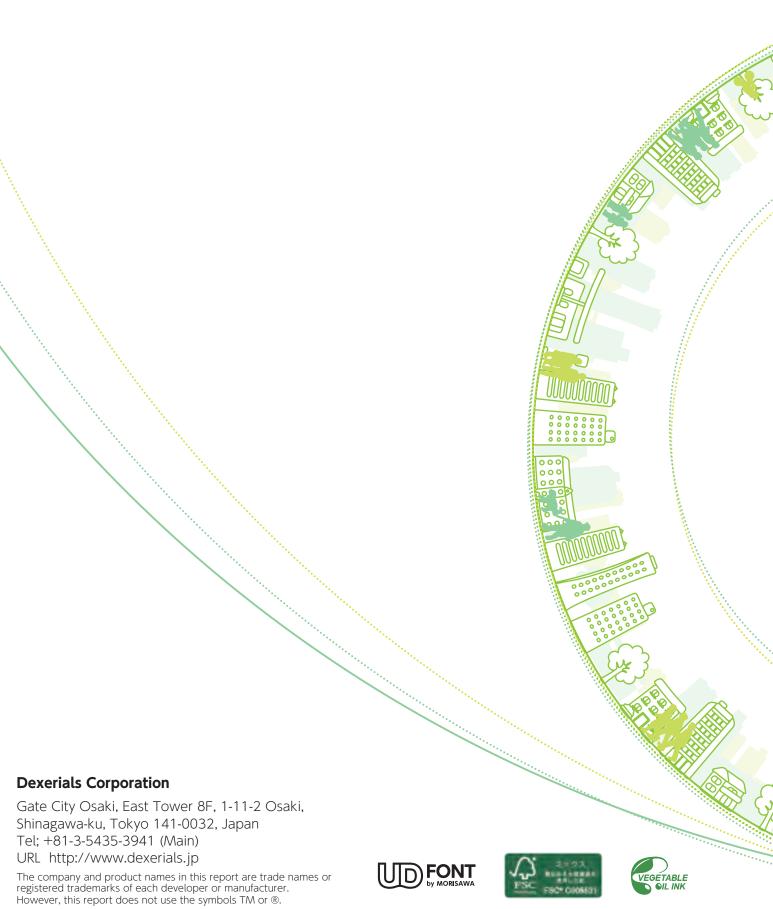
Inorganic polarizer

Inorganic waveplate



<sup>\*</sup>Please refer to the Dexerials IR website (http://www.dexerials.jp/en/ir) for detailed IR information.

\*\*Profit attributable to owners of parent company



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