

# CSR REPORT 2017

Toyo Aluminium Group CSR Report



# Create the future

Our CSR is to act following the principal rule "create the future; I will create it" to contribute to developing sustainable societies.

Our new CSR-oriented initiatives that have been redesigned based on the company's modified organization since 2016 are going to start.

Our CSR-oriented initiatives, as it has been designed so that it can make good use of our strong points and superior technologies, can be kept effective and sustainable. We shall rebuild the management into a CSR-oriented one to ensure that it can contribute to the development of sustainable societies.

## Management principles

We, in the Toyo Aluminium Group, will act as follows.

- Through sound business management, we will aim to provide products and services that always inspire customers, prove useful for the society, and are environmentally friendly.
- We will be committed to constant innovation and strive to provide products utilizing advanced technologies.
- 3. We will foster a vibrant and free-spirited corporate culture and aim to be a group of geniuses.
- We will be aware of social responsibility and contribute to the society as a company with dignity.

## Course of action

- "Create the future; I will create it"
- 1. Let's aim for the top.
- 2. Let's win with our wisdom.
- 3. Let's deepen communication.
- 4. Let's learn from our mistakes.
- 5. Let's make more use of our sensitivities.
- 6. Let's form alliances.
- 7. Let's further heighten awareness about safety and security.

## Basic CSR policy

We in the Toyo Aluminium Group aim to build a corporate culture that allows us to continuously improve and maintain our sound business activities. To that end, we will develop a management that can contribute to society by (i) developing corporate activities that are compliant with social norms and corporate ethics, (ii) providing quality products that allows customers to use with peace of mind, (iii) conducting business activities in harmony with the environment, and (iv) conducting activities that place the utmost priority on occupational health and safety in the



# CSR REPORT 2017

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## Editorial policy

# ■Introduction

This report is intended for our stakeholders and describes policy, challenges, directions and current situations of our CSR-oriented initiatives that are in line with goals leading to a sustainable society. Until the last year, our reports were prepared along ISO 26000. However, for 2017, our reports are prepared taking into consideration of the concept of SDG (sustainable development goal).

This year's report features "food and health," "global environment" and "society and infrastructure" to present the concept of "creating the future." For each of our Group's CSR materiality factors (important challenges), our action plans including description about how they were formulated along the SDG Compass, directions and goals, and activity reports are presented.

Since 2016, with supports from Mr. Masao Seki, specially-appointed associate professor of Meiji University as an independent adviser, we continue improving our CSR-oriented initiatives.

#### ■Reference guidelines

Global network

- ISO26000 (Guidance on social responsibility)
- GRI Sustainability Reporting Guideline, 4th edition
- Guidelines for Environmental Reporting, 2012 edition, Ministry of the Environment
- SDG Compass: a guide for business action in alignment with SDG

# ■Period reported

Our action within a period from April 2016 to March 2017, and part of the 2017 action policy and plan as well, are reported.

#### ■Scope

Toyo Aluminium and affiliated companies

#### ■Issue date

September 2017 (previous edition in September 2016 and next edition slated for September 2018)

#### Cover design

Metaphorically speaking, a child is building (creating) a jigsaw puzzle (future).

# Create the future for food related safety and health







Food safety and quality is important as it relates closely to our life. Elongation of food expiry date can lead to reduction of food wastes. Making good use of the excellent properties of aluminium will enable us to manufacture such products that can meet these important requirements.

Medical and nursing care service is the most important safety net for people. These services of high quality have to be provided equally to all people. Our medical packaging materials are highly hygienic, and safe in that they are designed to prevent accidental ingestion and forgery.





# Unique water and oil repellency technologies contributing to reduction of food wastes

We developed a special repellency technology that allows a "yogurt container lid (plastic film) to be kept not smeared with yogurt" getting a hint from a lotus leaf that can repel water. We have also developed an oil repellency technology available for mayonnaise containers (tubes).

We can use these water and oil repellency technologies to develop such food packaging materials that can eliminate waste. Reduction of food wastes can lead to reduction of environmental burdens.





# Packaging material designed to prevent accidental ingestion of medicines

In western countries, legislation for protecting children from accidentally ingesting medicines has been introduced. The Japanese Government (Ministry of Health, Labour and Welfare) has pointed out the importance of establishing such legislation.

We have developed a two-action package opening system that consists of peeling off the aluminium foil lid and then pushing the pill out. Another invention for the same purpose is a different packaging material of aluminium that needs larger force for pushing the pill out. These two special packages can prevent children from taking pills out of them whereby accidental ingestion can hardly occur.



Pill package that prevents children from opening them easily



# Safe ink pigment free of solvent detrimental to the environment

Ink materials free of harmful organic solvent (conformable to Swiss Ordinance) are needed internationally. To meet this need, we have successfully developed a non-aroma aluminium pigment free of carcinogenic solvent.

This material could be used for various printing applications including those for food packing materials.



Various food packages (image)

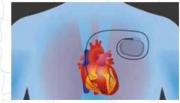
# A smaller pacemaker resulting from a fusion between core technologies

For patients who use an implantable pacemaker, downsizing of these devices is a critical requirement to make their daily life

We developed a special product using a fusion of two technologies - aluminium sheet rolling technology\*1 and atomizing technology\*2 - available for manufacturing a smaller size pacemaker. A smaller pacemaker can reduce the patient's burdens during replacement of batteries, which allows them to have a daily life similar to that of people not requiring these

Aluminium sheet rolling technology\*1: forming an aluminium plate into a thinner sheet of uniform thickness by rolling

Atomizing technology\*2: powdering molten aluminium by



Pacemaker (image)

# Create the future for global environmental protection

To construct a recycling-oriented society, we are contributing to changing production systems to those having a smaller environmental burden, and reducing, recycling and reusing wastes.

Renewable energy is essential for creating a sustainable society in that it hardly emits greenhouse effect gases and can contribute to prevent global warming. We supply solar battery components that can provide batteries with higher efficiency and quality, which in turn leads to the

















As a means for preventing global warming, renewable energy is expected to further spread. Among others, solar batteries that have already spread in our life are needed to have further higher efficiency.

We are greatly contributing to improving solar panel's power generating efficiency and reducing power generation cost through developing, manufacturing and selling solar battery components. Furthermore, we contribute to spreading "lightweight panels" to facilitate private power generation.



Solar battery panels installed on the roof of Yao Works

# Water paint contributing to VOC reduction

Paint is oil (solvent) or water based. Substituting water paint for solvent based paint will lead to a reduction of VOC emissions. However, aluminium flakes, an essential component of metallic paint, react with water and generate hydrogen, which means that they cannot be contained directly in water paint.

We have developed a surface of aluminium flake pigment coated with silica. This impermeable, transparent layer of silica can keep the aluminium-inherent aesthetics unchanged. The water-resistant bright metallic pigment of aluminium flakes can thus contribute to the spread of water paint. and VOC reduction as well.



Automobile coated with an aluminium flake metallic paint (image)

# Recycling aluminium containers in cooperation with users

Toyo Aluminium Ekco Products Co. has been operating an aluminium container recycling system in cooperation with the users (food plants) for several years. Used containers are collected and sent to a melter, where the containers are recycled to secondary aluminium metal for a new usage.

In future, we hope the systems will be expanded into our own advanced recycling system so that home wastes of aluminium products can also be recycled.



# Create the future for the society and infrastructure







Some of the Japanese infrastructure that was constructed in the high economic growth period in the 1960s has now been deteriorated to a dangerous level of possible collapse. Japan, a natural disaster-prone country, is required to have a resilient and quality infrastructure so that they can resists against such disasters. We, Toyo Aluminium Group, are contributing to the life elongation of such structures using new material of longer durability and higher strength achieved by our own technologies.

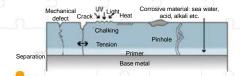
# Rust prevention of structures for less maintenance

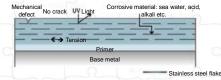
One of the main causes of deterioration of a structure is rusting. Earlier deterioration gives rise to heavier maintenance burdens.

We have developed a special paint SABIKONA-ZU getting a hint from the laminated structure of abalone shell that is too strong to be broken by normal hammering. This is a paint containing quality stainless-steel flakes showing hard paint film, excellent chemical resistance and longer life. This crack-resistant paint permits longer maintenance intervals.



Penstock at Kambara Complex, Nippon Light Metal Company





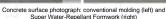
Structure Surface: normal coating (left) and SABIKONA-ZU (right)



Concrete structures may have different appearance depending on the type of surface treatment and finishing

Our concrete mold "Super Water-Repellant Formwork" has a special water-repelling surface that can reduce bubbling on the concrete surface and color irregularities, and contributes to a substantially cleaner surface of concrete molding so that no subsequent polishing is required unlike the ordinary form mold. Furthermore, reduction of bubbles can lead to higher durability of the concrete structure because rainwater staying on its surface reduces. Our technical knowledge and knowhow for other than aluminium material are also an important source for our contribution to the society.





# 3D printers, a new technology assuring the growth of manufacturing sectors

3D printers for metallic material have been noticed as a means for manufacturing a complicated structure in a single process.

We produce aluminium alloy powders available for 3D printing technology. The powder material is homogeneous in terms of the composition and form. This material would support development and spread of 3D printing technology, a future essential technology for assuring the growth of manufacturing sectors, that is available for manufacturing such complicated structures that cannot be manufactured by conventional molding.



A part manufactured by aluminium alloy powder 3D printing

Our social responsibility is to raise the quality of the company and employees to the top level and continue to operate.

Mr. Masao Seki, specially-appointed associate professor of Meiji University, adviser for Toyo Aluminium Group CSR promotion activities, and Mr. Masao Imasu, Chairman of the Board and Representative Director of Toyo Aluminium K.K. talked about "CSR of the Toyo Aluminium Group."

[Seki] What's the social responsibility of Toyo Aluminium Group?

[Imasu] I think that a company's mission is to continue to operate. To continue to exist to give benefits to the society and make our employees happy, we have to continue to profit and seek sustainable growth. This is the CSR of Toyo Aluminium Group. I believe that the company's management should be responsible for CSR. The company's management should continue insisting that CSR is essential for our sustainable growth. Any companies who are saying that CSR is not profitable are not first-class companies. To make Toyo Aluminium Group reach the first class, employees' power is absolutely needed.



The value of a company depends on the employees. Top-rated employees can make the company top-rated.



[Seki] The Toyo Aluminium Group's action policy includes "Let's aim for the top." Please tell us your ideas about human resources development.

[Imasu] Regardless of how deeply IT develops or AI is introduced, a company is structured by the employees, which means that the value of the company is determined depending on the employees. My policy is represented centrally by "Let's aim for the top." For a company to be considered top-rated, sales and other managerial factors are important but the company's dignity is more important. Good sales do not necessarily mean that the company is top-rated. When the employees have no dignity, the company cannot be considered top-rated.

[Seki] Would you tell me the meaning of "top-rated" and "dignity" more specifically?

[Imasu] I think this is an ability of doing ordinary things in the ordinary way.

For example, this is an ability of greeting properly. This is a communication in a true sense, not just a transfer of information, with neighbors, customers, material suppliers, external persons or colleagues. Accumulation of usual communications may result in the formation of socially acceptable dignity. Without it, CSR would be a castle in the air. CSR cannot be measured with performance or nonperformance, or observance. It is basically a matter of manner.

[Seki] You are touching the essence of CSR. Of course, it is important to have knowledge about CSR. However, more important is to put one's heart and soul into the work to assure genuine CSR. [Imasu] A suffix do (meaning "way" in English) represents a type of Japanese culture, e.g. Judo, Kendo (Japanese fencing), Sado (tea ceremony) and Kado (flower arrangement). I think this is a fusion between form and spirit.

Learning a form is important, but it wouldn't be genuine until one's heart and soul is put into it

[Seki] What do you think is necessary for the company to grow?

[Imasu] Growth of an employee affects directly the growth of the company. An action policy of Toyo Aluminium Group is "Create the future; I will create it." I often tell employees that we shouldn't measure a thing to see whether we can do it or not. What's important is whether we will do it or not. Whether it can be done or not is just a consequence. If they tend to first think whether they can do it or not, they may become so negative that they mention many reasons why they cannot do it. First, we should have a strong will to do. For employees, their company is a stage where they can realize their dream. On the stage, they create their future, which in turn means that they create a future of the company. However, it is not easy for them to understand this idea. Therefore, I often instruct senior employees to show their performance so that their subordinates can learn from what they see their bosses doing. They may not actually show what they do. But their performance represents themselves. Therefore, senior employees are required to develop themselves.

[Seki] Now, we have to think of the company's growth from a long-term viewpoint and seek it with a strong will more than ever, don't we?

[Imasu] We have to see the current situation to identify what to be done in the future. I believe that assuming social responsibility and supporting the society without being swayed by the benefits of the moment - short-term profits and/or results - will lead to the sustainable development of the company.

Without one's heart and soul, no CSR can be genuine.



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# President's Talk

# Addressing social challenges and creating economic values

Ms. Ayako Sonoda, President of Cre-en Inc., a company providing service for developing SDGs (Sustainable Development Goals), and Mr. Hiroshi Yamamoto, President and Representative Director of our company, talked about "how our business should move toward the 100th anniversary of the company's founding (in 2031)".

[Sonoda] How do you see the current business environment? [Yamamoto] Our company will have our 100th anniversary of the company's founding in 2031. However, we are afraid that the domestic aluminium business market has been shrinking. We are now establishing the fifth business hub following the presently existing four business divisions: foil, powder and paste, photovoltaic, and daily necessaries. Overseas expansion of our business fields is also important as we are being confronted with the difficulty of shrinking domestic market.

[Sonoda] Would you explain the fifth business hub more specifically?

[Yamamoto] New business or product; it is easier said than done. We are a B to B intermediate material supplier, so that we have no interface with end users. To exploit a new business or product, we may have to enter into other fields than those we have been acquainted with – raw material.

[Sonoda] Would you explain your CSR initiatives in the context of global expansion strategies?
[Yamamoto] We are now focusing on ASEAN and Middle Eastern countries including India.



We will use local human resources with a view to raising the manufacturing capabilities to the same level as Japan. In recent years, we experienced some CSR related problems including a dust explosion in 2005: an affiliate company causing customer complaints leading to recall, and leak of harmful substances. To prevent recurrence of these problems, we shall make further efforts to develop in terms of safety, quality and environmental protection. Our CSR initiatives focus on safety, quality and environment. First, these problems shall be eliminated completely from our business in Japan, being followed by a subsequent horizontal development of the established measures for our overseas operation.

[Sonoda] What's your ideal of the company that would be in the 100th anniversary of the company's founding in 2031? [Yamamoto] We, together with the employees, are going to see how the company would have been by the year. As mentioned before, first, we have to establish the fifth business hub and global development of our business. New businesses and products should be in consistent with social needs, and should hold as a business and generate economic values.

[Sonoda] You are using a term "human asset" to represent "human resources." What's your idea about a human asset needed for your business?

[Yamamoto] There are three points. First, he (she) shall be able to plan a project. Second, he (she) shall be always conscious of innovation. Third, he (she) shall be able to collaborate with local employees.

For the first point mentioned above, I hope to develop those who can do everything alone. They may be those having multiple talents, or generalists. For the second point above, those who are willing to change or create without accepting the present situation are needed. For the third point above, those who are flexible enough to acclimatize themselves to the local culture and environment are needed.

[Sonoda] You are positively introducing the SDG (Sustainable Development Goal) concept proposed by the United Nations, aren't you?

[Yamamoto] We are an aluminium products supplier. However, we can diversify and globalize our business toward e.g. antibacterial products and infection preventive products and solar batteries and lithium ion batteries effective for CO2 reduction whereby we believe we can contribute to addressing various global problems, for example, those represented by the third SDG (Ensure healthy lives and promote well-being for all at all ages) and 13th SGD (Take urgent action to combat climate change and the impacts).

We need business fields outside the ordinary business territories of raw material suppliers. A key to success is whether we can create business values addressing social problems around the world.

Moreover, various types of partnerships may lead to different types of business development to enable business with end users in various regions.

[Sonoda] SDGs give us many tips for new business opportunities. Your company is making great efforts to support communities, aren't you?

[Yamamoto] For example, we participate in various community activities e.g. cleaning rivers and roads around our plant, and town festivals. Besides we are going to participate in NPO/NGO activities and disaster recovery voluntary operations.

[Sonoda] By visiting the site and actually seeing persons being troubled, we may get various ideas.

[Yamamoto] I think that our company should have a system that allows employees to afford social contribution activities. Communications with the communities may lead to ties and mutual confidence, which in turn would lead to exploitation of potential business needs. For example, BOP\* business would be expected. We are looking for a different type of business that addresses social problems using a CSV (Creating Shared Value) concept, that is, a business activity for our sustainable growth that could generate also social profits, not a simple social contribution activity.

BOP\*: Base of the Economic Pyramid that means the lowest income group

SDGs give us many tips for new business opportunities.

# Visions and Strategies for Future

Toyo Aluminium Group has defined CSR policy and code of conduct based on the group's "management principles" and "course of action."

Besides, we support the SDGs (Sustainable Development Goals) adopted by the United Nations in September 2015 understanding the background of the UN proposal.

Our CSR initiatives to date have been defensive so that they are limited to the extent that they do not violate laws and do not adversely affect the internal and external entities of the group. However, in 2016 and later, we have introduced a CSV (Creating Shared Value) concept and started to create foundations for "offensive" CSR initiatives along the SDG Compass with a view to earnestly solving the social problems identified as SDGs.

We shall contribute to the development of sustainable societies and make efforts to raise corporate values.

For the CSR code of conduct of Toyo Aluminium Group, please see the group's website







# Management

# CSR management based on SDG Compass

Toyo Aluminium Group is using SDG Compass for CSR initiatives so that our business management and CSR initiatives can be made consistent with SDGs and our contribution to SDGs can be managed and measured.

According to the SDG Compass, we carried out Step 1 Understanding the SGDs and Step 2 Defining priorities in 2016. This report corresponds to Step 5 Reporting and communicating. In 2017 and later, we will carry out Step3 Setting goals and Step 4 Integrating to complete the cycle of Steps 1 through 5. The cycle shall be repeated to continue and improve our CSR initiatives.



# Step 1 Understanding the SGDs

# Among management and employees

In 2016, we had a SDGs study meeting with an instructor Mr. Masao Seki, specially-appointed associate professor of Business Administration Department of Meiji University, and an attendance of about 180 persons including employees in charge of CSR initiatives, directors and managers, and other related persons. We studied what SGDs are, historical review of SDGs until their adoption, and how SDGs can be incorporated into company's management. In contrast to a participant's comment to the effect that SDGs cannot be considered an immediate matter, many said positive words to the effect that importance of CSR could be recognized, and/or everybody should be more conscious of CSR.

We shall continue making efforts to make CSR initiatives and SDGs known more profoundly by our management and employees.



Study meeting for SDGs with Mr. Seki, specially-appointed associate professor of Meiji



# Step 2 Defining priorities

# Analyzing stakeholder's expectations

As an event of stakeholder engagement, we interviewed five specialists representative of our stakeholders to help us identify Toyo Aluminium Group's important challenges (materiality). The members, specializing in CSR, environmental concerns, human resources, and international cooperation, showed their expectations on our social contribution activities. As a result, we could identify important challenges more widely in various fields.



Mr. Masao Seki, specially-appointed associate professor of Business Administration Department of Meiji University, CSR related senior adviser for Sompo Japan Nipponkoa Insurance Inc.



Ms. Mariko Kawaguchi, chief researcher, Daiwa Institute of Research Ltd.



Mr. Itaru Yasui, managing director, Institute for Promoting Sustainable Societies



Mr. Tsuneo Sasaki, president, Sasaki Tsuneo Management Research



Mr. Takeshi Tomino, assistant director general (then), Japan NGO Center for International Cooperation (JANIC)

Major comments

- Introduce an "outside in" principle
- Study "materiality" taking the future into consideration.
- Focus on SDGs selectively so that those relevant for the company's roles and characteristics can be addressed.
- Focus on the environmental burdens of aluminium throughout its life cycle.
- As a growth strategy, women's active participation in workplace is important.



**《** 数算7%ミニウム株式会社

# Step 2 Defining priorities

# Company's own important challenges

In December 2016, we started a CSR promotion team that consists of both the production and management divisions and held workshops three times to identify the group's important challenges, and analyzed their importance taking into consideration the advice and recommendations from the management.

To identify important challenges, we used various international guidelines applicable for social responsibilities initiatives such as SDGs, ISO26000 and GRI Sustainability Reporting Guideline (4th edition) so that they can be identified exhaustively. The workshops reviewed and discussed the identified important challenges to determine their importance from the company's standpoint while taking into consideration the current business environment.

We focused on opportunities of addressing social problems through our business activities. Based on CSV (Creating Shared Values) principles, we have analyzed the challenges to continue to generate innovations that can contribute to achieving SDGs.

# Major comments from the management

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Masao Imasu, Chairman of the Board and Representative Director (left) Hiroshi Yamamoto, President and Representative Director (right) Hearing from the management in March and April 2017 (their positions shown here are as of the date of the interview)

The management shall assume responsibility for the promotion of CSR-oriented initiatives. We, the management, shall generate profits while assuming social responsibilities. We are expecting the employees to generate as many innovations as possible, and contribute to sustainable societies and our business activities.



Masamichi Ueda, Director, Senior Managing Executive Officer, Executive Officer for Management Planning and Material Divisions I'm going to contribute to strengthening CSR foundations through establishing secure governance and collecting excellent human resources. To address SDGs, I shall monitor how our products are and should be beneficial to the society while assuming responsibilities for our profit and cash flow management.



Jun Shimizu, Director, Senior Managing Executive Officer, Executive Officer for Engineering, Personnel Affairs, Secretariat, Genera Affairs, Tokyo General Affairs and Engineering Center We shall create the fifth business hub in the context of CSV initiatives. To this end, I shall respect the diversity of values and perspectives, and inspire innovations.

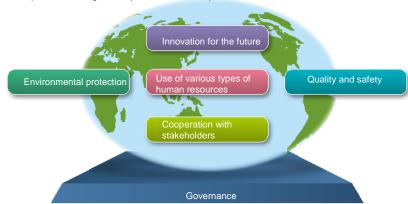


Kiyoshi Asada, Managing Executive Officer, Director for CSR promotion office, internal auditing department and quality assurance department Toward the company's 100th anniversary in 2031, we shall define the desired picture of the company. To this end, we shall know what we can do and address important challenges using the power of all employees.

# CSR important challenges (materiality)

We have defined five CSR important challenges (materiality) as a result of analysis for "stakeholder's expectations" and "our company's own views about importance." To address CSR important challenges, governance is a matter of the utmost importance. Toyo Aluminium Group shall conduct CSR initiatives for addressing the five CSR important challenges assuming responsibilities as a global company to contribute to creating the future.

CSR important challenges of Toyo Aluminium Group



	CSR important challenges	Overview	Contribution to SDGs
1	Innovation for the future	We shall make the best use of our resources to establish future-minded innovations appropriate for addressing social problems including those concerning health and medical care, sustainable energy and infrastructure as defined by SDGs.	
2	Environmental protection	Focusing on the life cycle of material including the stages of production, use and recycle, we shall make efforts to reduce emissions of greenhouse effect gases and other environmental burdens.	
3	Use of various types of human resources	As a global and diverse organization, we shall develop such human resources as those who are self-disciplined and willing to take on challenges. Human rights and "life-work balance (emphasis more on life than work)" are also important aspects to be considered.	
4	Quality and safety	We, as a manufacturer, are responsible for continuing making efforts to raise quality and safety of products, and occupational safety and health as well.	
5	Cooperation with stakeholders	Communication with stakeholders will help us understand our roles and responsibilities, which in turn leads to our getting new opportunities for social values.	

# Innovation for the future





We believe that manufacturers are responsible for providing people new technologies and products in accordance with social needs, contributing to addressing social problems and developing sustainable societies, and creating economic values. We, moving out of the aluminium manufacturing industry, commit ourselves to continue developing and providing better technologies and products making positive use of our core competence.

# Our Approach

We are developing our technologies based a core competence of four hub technologies of aluminium foil (over 80 years), aluminium powder and paste, solar battery and daily necessaries.

We are looking for the fifth hub technology based on CSV (Creating Shared Value) initiatives. For this purpose, we are researching potential needs in the society and our advanced technology headquarters and new business development department are devoting themselves to R&D for such new core technologies.

We. Toyo Aluminium Group, have our own, unique technologies for each of the four core technologies and contribute to the society. For example, our products using our water-repelling technologies, and silica-processed aluminium paste as well, have been highly appreciated as products that can meet customer requirements. We are proud of leading the food and medical packaging, metallic paint and powder engineering industries as a raw material provider.

Now, we, the Advanced Technology Headquarters and New Business Development Department, are focusing on developing a new business field as the fifth technical hub following the existing four hubs. The advanced technology headquarters is responsible for developing innovative technologies. The new business development department supports new business development projects in all phases including marketing, development, manufacturing and selling in a consistent manner. Specifically, we are participating in external projects for developing new ideas and products through collaboration among industry, government and universities, and entering into a new business field with our core competence to address business needs from industries that are different from our existing business areas. Our inventions to date include a new aluminium foil material that can be soldered (soldering is unavailable for conventional aluminium material), nasal fracture fixtures that are superior in heat dissipation, and radioactive substances removing technologies.

We shall take CSV initiatives with a deeper communication with stakeholders to create values that can be shared among all people in the society including our Tovo Aluminium Group suppliers.

New technology development scheme Promotion of open innovation Our own technologies

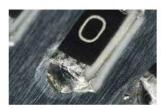
# Our Performance

# Example

# Solderable aluminium foil available for wider applications

Due to its light weight, better workability and rust preventiveness, aluminium foil has been used widely as a circuit material for IC cards and security tags.

However conventional aluminium foils are unavailable for soldering. We succeeded in developing a new type of aluminium foil, that is, a solderable one, using our special knowhow and technologies gained through our R&D efforts for long years. Aluminium foil circuits are thus expected to spread more in various fields.

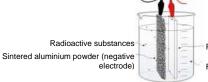


Aluminium foil to which an LED chip is connected by soldering

Removal of radioactive substances using a porous structure of sintered aluminium powder

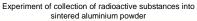
Nuclear power generation needs treatment of a large amount of radioactive contaminated water. Some radioactive substances have a half-life of as long as 30 years, which means that they can stay in the environment for long years.

We succeeded in an experiment of removing some radioactive substances from contaminated water using a porous structure of sintered aluminium powder that has been used widely for manufacturing capacitors. Optimization studies will be carried out for commercialization of the nuclear contaminated water treatment systems



Platinum (positive electrode)

Radioactive contaminated water





# Voice

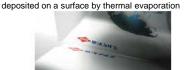
Yuichi Asano, Business Strategy Department, Powder Paste Division. Toyo Aluminium K.K.

principle of "product out (create a product based on a company's own strength)" and "market in (create a product based on market needs)". Value)-based CSR-oriented initiatives to promote open innovations stakeholder involved activities for creating values.

# High-reflection of an ultra-smooth surface of aluminium foil



A reflection mirror that is required to be highly reflective uses a vapor-deposited aluminium film\*. Aluminium is a glossy metal. However, it couldn't be processed to a mirror surface. We, using our own possessed aluminium-oriented superior technologies including rolling and roll-polishing technologies, succeeded in developing a special aluminium foil that, maintaining its original characteristics, shows an ultra-smooth surface that warrants a higher reflection. Since this high-reflection aluminium foil is more durable than vapor-deposited aluminium films, they could be used for such applications that require long durability e.g. solar cooking apparatuses and light collecting devices. Vapor-deposited aluminium film\*: aluminium film made and



High-reflection aluminium foil surface as smooth as a mirror

Nasal fracture fixture made by aluminium forming technology

After nasal fracture surgery, the nose may swell and heat, so that it has to be cooled. We, using our long experience for aluminium forming technologies and making positively use of the excellent thermal conductivity and heat-dissipating capability of aluminium material, developed a nasal fracture fixture that can fit the patient's nose even if it has swollen. The fixture can soften easily by soaking it in hot water, so that it can be shaped freely to the actual nose. When it is cooled to the ambient temperature, it hardens so that it can be fitted to the nose firmly. We are going to look for other needs for development of new medical devices.

Nose wearing a cast

We have been manufacturing and selling various products in a However, from now on, we shall take CSV (Creating Shared

CSR important challenges

CSR important challenge

# Environmental Protection





We process aluminium made from mineral resources, bauxite, to produce various aluminium materials using a large amount of natural resources, energy and chemicals, whereby, we admit, we are affecting the environment. We shall commit ourselves to adjusting the business operation to make it consistent with the global environment

# Our Approach

## **Approach**

We shall address environmental protections through providing environmentally-friendly products and reducing environmental burdens attributed by our business activities. We will develop technologies available for improving efficiency and reducing cost of solar batteries. We will develop measures for reducing energy consumption during processing stages, control the use and storage of chemicals, and promote recycling.

We shall eliminate environmental troubles making use of appropriate environmental management systems.

## Our Performance

# Example

Environmental accident at (then) Hirano Works, and recurrence prevention



On September 19, 2016, at (then) Hirano Works, an operator used a wrong chemical leading to the generation of chlorine gas. According to instructions by the police and fire departments, the works was shut down and the inhabitants were instructed to stay at home.

As recurrence preventive measures, we have introduced a system that can physically prevent wrong chemicals from being fed into the process; clear indication of information (chemicals name indicated near the tank feed point, and valve open/close status); increase in the number of inspection items; and risk assessment (to identify potential dangers and

assessment (to leentry pote countermeasures). In November 2016, we had an emergency drill in cooperation with the fire department to confirm the procedure for reporting to the fire department, evacuation to the designated areas, how to wear protective equipment, and how to relieve and protect victims. The drill will be continued while we shall make efforts to prevent recurrence of the

accident



Emergency drill at (then) Hirano Works

Intensive activities for eliminating environmental troubles (accidents, faults and complaints)



Toyo Aluminium Group has been performing three intensive activities to eliminate "environmental accident" and "environmental complaints" that can affect the environment outside our works, and "environmental faults" that can occur within our works.

- (1) For every serious accident that occurred in the past, we perform an environmental audit and review the audit result at regular intervals to determine the adequacy of the recurrence preventive measures.
- (2) Especially for accidents that happened due to human errors, in addition to the internal review work for determining if the recurrence preventive measures are suitable or not, we employ external consultants so that objective instructions and recommendations useful for identifying root causes of the accident can be obtained.
- (3) To prevent "environmental accidents" that could affect the external environment, we perform emergency drills at regular intervals so that the employees can respond properly.

# Recertification per ISO14001:2015



In September 2015, ISO14001 was first totally revised to ISO14001:2015. As a result, the standard could incorporate our SDGs for integration between environmental management and business activities and strategies, environmental performance and lifecycle oriented initiatives. Our works that have been granted ISO14001 certification will be recertified per ISO14001:2015 by September 2018.



Reviewing recertification per ISO14001:2015

# Efforts for raising the recovery rate of rolling oil



Our aluminium foil rolling mills use a large amount of rolling oil. The oil is highly volatile so that it can vaporize in the air during operation. To recover the vaporized oil, we are now installing oil vapor recovery systems. In 2016, our Yao and Kanbara Works each installed an oil vapor recovery system, which led to the recovery of vaporized rolling oil of more than 40%. We are making efforts to further improve the oil recovery rate.

# Cooperation with the communities

for biodiversity conservation

We are continuing activities for protecting the global ecosystem. In 2016, our projects in collaboration with the communities include:

- Knowing the biodiversity of aquatic life through survey of water quality in the rivers to which liquid wastes are discharged from our plants and periodical observation of the ecosystem in a reservoir downstream of the rivers
- Periodically monitoring carps living in the final waste drainage of our plants to know its effect on the downstream ecosystem with a goal of ecosystem conservation.
- Exterminating invasive alien species from the premises of our plants



Carps kept in the drainage within our premises



Voice

Mitsuo Onishi, CSR Promotion Department, Toyo Aluminium K.K. COP21 (21st United Nations Framework Convention on Climate Change) held in Paris, France in 2015 adopted Paris Agreement on Global Warming Prevention which then came into effect in 2016. Challenges for reducing global warming gases and wastes, and recycling initiatives as well, based on the Paris agreement, are essential for preserving the global environment and ensuring sustainable growth of our company. All our plants shall commit themselves to continuing activities for reducing environmental burdens.

Our diversifying human resources



Three keywords that represent the current situation of the business environment in Japan are globalization, decreasing work force, and diversifying personal values. Taking into considerations these factors, we shall develop such working environment that can warrant individual's job satisfaction and their growth and support various work styles to contribute to sustainable societies and sustainable business activities.

# Our Approach

For the globalization of our company, we are developing global human resources making use of support programs for overseas studies (overseas dispatch of employees).

To support female employees, we have reformed our personnel system so that female employees can choose their career courses among many options. Support programs intended for female employees regarding career design are

To support diversification of work styles, we are planning a system that allows employees to choose their desired work styles irrespective of the location of their assignment.

# Our Performance

Support female employees...
their career development through Support female employees for layered career training programs





Toyo Aluminium K.K. has a yearly career development course of three days in total intended for female employees only. This training course facilitates understanding of the company's personnel system and provides opportunities for thinking about their career. In 2016, the training course lectured about "career design" and "heartful communication," and invited a distinguished female worker as an external lecturer to listen to her actual voice about work. We are supporting female employees so that 3% of them would have taken a managerial track by March 31 in 2019.

# An in-house school for developing next-generation leaders



Toyo Aluminium Group has an in-house school named "Mirai-Sozo Juku (future creation school)" aiming to develop next-generation leaders. "Developing aggregators (who are capable of identifying what is to be done by him (her) and have a power and motivation needed for completing the job under any difficult situations)" represents a core statement that justifies an initiative for establishing and strengthening mechanisms for facilitating (1) developing next leaders, (2) encouraging the management to self-reform and (3) creating innovations. In 2016, an executive session of 16 board members and core session of 21 management and middle-management persons talked about the group's new projects and managerial strategies. The core session worked out new project plans applicable for the group and improved their capability of planning managerial strategies.



Group photograph of the third-batch of members

# Workplace where everybody can work in a lively way



Toyo Aluminium Group is developing a working environment that all types of human resources can feel easy in working with a view to ensuring health of all employees, allowing them to willingly exercise their capability, and improving their productivity

The executive management has declared the following statements. Based on them, PDCA management procedures shall be defined and performed.

## 1. The executive addresses work style renovations.

- (1) Follow the 36 Agreement (a labor-management agreement on overtime and holiday work) including its special clauses.
- (2) Continue making efforts to rectify overtime work management and reduce overwork.
- (3) Reduce overtime work by redesigning job processes, improving their efficiency or disusing them.
- (4) Study such work styles that can improve working efficiency or allow the employees to display their creativity more flexibly (working at home, mobile PC, Web meeting, etc.)
- (5) Review trade practices (to minimize short-lead time orders and frequent change of purchase order specifications, etc.)

#### 2. Eradication of harassments

- (1) Develop an execution system for various educational programs including those intended for managers.
- (2) Deal severely with harassers, etc.

# Bright and healthy workplace - "Manners



Toyo Aluminium Group has been performing Manners Project throughout the group since 2009 to develop a "bright and healthy workplace.'

This project is based on the belief that company's class depends on the employee's dignity. Thanks to Ms. Kazuko Omori, leading instructor of the project, we have now trained our own Manners trainers throughout the group. Last year, we had a program for training Manners trainers. As a result, we have now 11 trainers who are eligible for training Manners

Our Manners textbook is highly appreciated so that it has been used also by other companies for training. We will continue making efforts to make Manners project further penetrate throughout the group.

Manners\*: refers to a tangible proof of ethics, not in the literal sense of the word "manner"



Manners training

Manners textbook

## Global human resources developed through long-term overseas dispatch



One employee of our company is now studying at a German research institute, International Solar Energy Research Center Konstanz taking a one-year overseas training course under our global human resources development program. Our overseas dispatch training programs have been in place for years in various countries e.g. Canada, UK and USA. However, this is the first time to dispatch to Germany. We are expecting him to study the world's highest level of German environmental technologies (for solar batteries). He is also expected to let us know communication capabilities and German cultures that he has learned through the study.

Masahiro Nakahara, Advanced Technologies Headquarters, Toyo Aluminium K.K. With a next-generation bifacial light-receiving solar cell module

When I was working in Germany, I felt that it is important for us to have a good teamwork to do jobs successfully. In Japan, "an individual is engaged in a job" in many cases. However, in Germany, "a team is engaged in a job," which needs everybody to display their idea and help each other for finishing the job; and needs a work system designed for substituting others for those who are absent for e.g. their usual vacations lasting as long as six weeks. I believe this is an ideal "life-work balance." I hope this work style to spread also in Japan to ensure sound development of our business.

Voice

Ena Izumi, General Affairs Department (Tokyo), Toyo Aluminium K.K.

I availed myself of childcare leave and returned to work in April 2017. During leave. I felt my own development through childcare and realized that there is such a type of personal growth that cannot be achieved in other way than on the job. I therefore decided to make efforts to handle both career and childcare. It is true that things that I couldn't handle alone have increased since I have been more restricted by time. However, communications with close people, including those for consultation, help me manage to combine my career with childcare. I'm now willing to improve my skill.

In our company, many employees return to work after taking childcare leave. Our company has a short working hour system available for childcare periods up to the child's third-grade in elementary school. Satisfactory childcare supports are in place and functioning well in our company. I, as a person who has done, and as a person of the personnel affairs department, shall support female employees having the same circumstances.

# CSR important challenges **Quality and Safety**

We desire to provide such products that are safe to use, high quality to customer's satisfaction, and beneficial to the society so that they can contribute to the development of the society and economy.

Our workplace motto "no production without safety" appealing to the workers for their safety-first attitudes is the basis of our operation. Safety refers to both working safety and product safety. We, manufacturers, shall assume social responsibilities for achieving both of them.

# Our Approach

# Approach

Each plant of Toyo Aluminium Group has been certified per ISO9001. Safety patrol by the president, accident recurrence preventive actions and identification of problems are being implemented.

Quality audits and safety audits using check sheets prepared according to ISO9001 and OHSAS18001 are being implemented at all of our plants.

We are willing to achieve continuing improvement in quality and eliminate quality and safety faults completely.

# Our Performance

# Example

Quality review meeting effective for reducing quality fault risks

Toyo Aluminium Group holds quality review meetings prior to releasing a new product or changing manufacturing processes in order to eliminate quality fault risks. The meeting consists of members from various departments including the quality assurance department, product development department and production technologies department so that quality problems can be generally checked for reducing quality assurance risks.

In April 2016, the meeting rules were revised so that it can cover wider ranges of subjects and it can be held more frequently.

As a result, it is now being held three times more often than the previous year. We shall continue making efforts to reduce quality faults with a goal of zero risk.



Quality review meeting

Number of meetings held:

6 in 2015

18 in 2016

Plant-to-plant crossover quality audits toward a higher-level of quality assurance



Toyo Aluminium Group holds plant-to-plant crossover quality audits. Auditing products and processes by a plant who is manufacturing different products using different processes can facilitate improving the group's overall performance of quality assurance activities. Good corrective actions identified by the audits should spread in other plants. We shall continue this auditing system to raise the management level throughout the group.



Reviewing quality checking functions to prevent recurrence of recall

In June 2016, Toyo Aluminium Ekco Products

specialists to identify effective corrective actions.

manufacturing and selling of cosmetics to the regulatory body.

We had no checking functions so that we couldn't find the

We consider this accident very seriously and to avoid

recurrence of the same trouble, we have reviewed the check forms available for the quality review meeting and consulted

supplier's omission of notification before the product was

had a recall of a cosmetic (nailcare product). This was caused by an omission of prior notification of

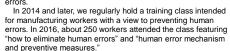
placed in the market.





Many of accidents and disasters are caused partly or solely by human

Eradication of human errors



The safety patrol by the president included inspections for human errors and reviewed the human error preventive measures taken for the disasters in the past to determine if they are effective.



A fire accident eradication taskforce In July 2015, our Gumma Works suffered a fire that occurred due to the ignition of organic solvent. To prevent recurrence of the same fire, four manufacturing plants of Toyo Aluminium Group jointly established a taskforce for eradicating such fire accidents.

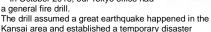
The taskforce employs a consultant specializing in factory's safety management. In reviewing measures, the group studied various countermeasures including in-house activities in accordance with international safety management standards. A principle called "Triple Spot Realism" (actual workplace, actual article and fact), as well as scientific theory and the mechanism of organic solvent fires, was also examined. We shall execute the measures to prevent recurrence of such accidents.



Taskforce activity

# General fire drill at Tokyo office

In October 2016, our Tokyo office had



about the disaster and emergency operations. Through the drill, we could identify what procedures need to be changed to fulfill post-disaster business resuming operations, and the participants found many tips for their better actions while performing even

headquarters in the Tokyo office to control information

perplexedly in the drill. We will have the same drill twice or more a year throughout the group to raise the disaster consciousness of the employees, and review the post-disaster business resuming procedures using a PDCA cycle principle to make the procedures more effective.



General fire drill



Voice Akio Watanabe. Quality Assurance Manager, Toyo Aluminium K.K.

ISO9001 was revised in 2015 to specify requirements for integration between quality system and business administration more profoundly.

We have been changing so that the revised edition of the ISO standard can be satisfied. All our plants are slated to complete recertification per ISO9001:2015 in 2017.

We will make better use of the quality management system as a tool for business strategies to manufacture better products.

# Cooperation with stakeholders



We cooperate with all stakeholders including customers, communities, local governments, NPOs and our employees to contribute to developing sustainable societies and carry out innovations to further sustainable business activities. Positive dialogues with stakeholders may lead to raising the corporate values.

# Our Approach

Our business is a social contribution activity in that each of our production bases may greatly and favorably affect the area through production and providing employment opportunities. We are supporting NPOs for academic or artistic projects in such a manner that we provide them with our products. Our employees are supporting local welfare works for example by donating our products to welfare organizations. We continue positively contributing to the local societies and communities to make them sustainable and raise our corporate values.

# Our Performance

Contribution to the "Constellation of the Earth" project to support development of next generation human resources

Type of stakeholder: NPO

A research project "Daichi no seiza (Constellation of the Earth)" draws a picture on the ground: reflecting the radio waves from a manmade satellite ALOS-2 (Daichi 2-go) on the ground will result in a picture of the constellation shown on the ground of the whole area of the town, which can be photographed. We donated a reflective material, ultra-smooth aluminium foil LUXAL® to the project. The picture taken was named "Ibarakikenpokuza." It was exhibited in the Kenpoku Art Festival (Ibaraki Prefecture). The project contributes to the development of next generation human resources.

Details for "Constellation of the Earth" are available in the project's website:



project: manufacturing a

Our products as a gift in return for "Furusato Nozei" donation to the city (by the hometown tax payment program)



Yao and Katsuragi cities in Osaka Prefecture where our production plants are situated use our products as a gift in return for "Furusato Nozei" donation to the city (by the hometown tax payment program): daily necessaries such as a cooking aluminum foil (Yao city) and manual fans coated with our interference color pigment "Chroma Shine" (Katsuragi city)



Fans coated with our interference color pigment "Chroma Shine" chosen by Katsuragi city as a gift in return for "Furusato Nozei" donation

Field trip available for junior high school students

Type of stakeholder: students and NPO

In March 2017, our Osaka Office received six second-grade junior high school students from Joetsu-city, Niigata as a field education program during their school excursion. This event was coordinated food or set meal at a restaurant will automatically by an NPO, School Support Center. We provided students opportunities for learning private company's business operations through lecturing about our products and employee's attitude towards their job.



Field trip

Toyal Zhaoging Co., Ltd.'s staff excursion for deepening

communications among employees Type of stakeholder: employees and their family

Toyal Zhaoqing sponsors every year a company excursion for employees and their family members as a means for facilitating communications among employees and expressing company thanks to them. In 2017, a total of 165 employees participated in the event. They enjoyed a tour choosing their favorite course among four



A course option "Chengdu and Jiuzhaigou in Sichuan (including scenic beauties such as Five Flower Lake)" - a group photograph of the participants

TABLE FOR TWO at our Chigasaki and Shonan-Yabata Works

Type of stakeholder: NPO







school meals in developing countries. Buying a certain donate 20 yens per food or meal to schools in developing countries for their school meals. Our Chiqasaki and Shonan-Yabata Works have vending machines for the project. We continue supporting this project, in such a manner that our every employee can participate lightheartedly, in the hope that children in developing countries grow in good health.

\* An NPO, TABLE FOR TWO International; in developing countries, one school meal can be bought at 20 yen.



A vending machine located in our Shonan-Yabata Works for TABLE FOR TWO

Toyo Aluminium Ekco Products donates products to welfare organizations

Type of stakeholder: NPO





Toyo Aluminium Ekco Products Co., Ltd. formed an alliance with an NPO Foodbank Kansai and donated disposable food containers, part of the products handled by the company, to seven welfare organizations and children's homes in the Kinki area.

This was done within our project for facilitating effective use of long-term stock. We could contribute to the society while improving the turnover of our products.



activity by a homeless supporting organization



Mr. Hiroshi Suzuki (right), representative researcher o Constellation of the Earth" project, associate professor of Kanazawa College of Art Mr Masato Oki (left) researcher of "Constellation of the Earth" project, researcher of Japan Aerospace Exploration

In the topical Kenpoku Art Festival (Ibaraki Prefecture) where as many as about 770 thousand people gathered, we performed a project together with the locals for drawing a picture on the ground making use of a manmade satellite and reflectors. In this project, aluminium foil provided by Toyo Aluminium K.K. was satisfactorily used as a material of the reflectors that reflect radio waves on the ground. At the site of the exhibition in Hitachi-Omiya city, we, together with children, handcrafted precise radio wave reflectors using mirror-like beautiful aluminium foil, during which we and children could direct our dreams to the universe. The reflectors were observed by an advanced land observing satellite (Daichi 2-go), which resulted in a picture of the constellation of as large as 50 km square shown on the ground. We again extend our gratitude to all supporters.

# Corporate governance



Toyo Aluminium Group distributed the company's management principles handbook to all employees in 2010 to allow them to understand the company's Management Principles and Course of Action more clearly and follow them correctly. The handbook also contains information about CSR policy and code of conduct to facilitate establishment of CSR initiatives in place.

In 2016, to strengthen surveillance capabilities, the rules for the management board were modified: the board meeting has been increased by changing the intervals from bimonthly to monthly, and the number of directors has been increased. In 2017, two years in succession from the last year, we shall perform internal audits to strengthen corporate governance of Toyo Aluminium K.K. and group companies.

## Corporate governance system

Toyo Aluminium Group has a process designed based on the Financial Instruments and Exchange Law to ensure that correct financial reports are prepared, and defines legal compliance policy and action rules for risk management per the Company Law, and per the Antimonopoly Law as well. By repeating actions of internal audit, review and improvement, our corporate governance has been strengthened throughout the group.

# Risk management

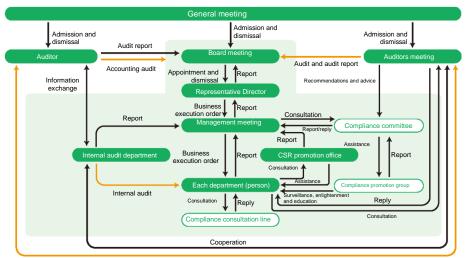
Toyo Aluminium Group has its own risk management rules and basic requirements consistent with the business strategies to ensure that any risk of our business is properly addressed whereby corporate values can be raised sustainably.

In addition to the group companies' individual action plans, Toyo Aluminium Group identifies nine risks that need overall management by the group as Critical Risks (see the list shown right) subject to intensive management by the responsible department. The group of the executive management officers of Toyo Aluminium K.K. and president of each group company headed by the president of Toyo Aluminium K.K. is responsible for guiding and controlling risk management of the departments and companies within the scope of responsibilities of each member of the leaders group.

For Critical Risks, the internal audit department performs general audits semiannually and reports the result to the management meeting. The members of the meeting are responsible for advising the risk management managers, and recommending them to study corrective actions for such risk items that are yet to be addressed enough.

Critical Risks
(1) Defective products or service
(2) Environmental problems
(3) Natural disasters and accidents
(4) Safety and health issues
(5) Defective information system
(6) Leak of company or personal secrets
(7) Negligence in obeying the legal obligation of disclosing information by the specified deadline
(8) Fault in trade control required for security purpose
(9) Faulty risk management for overseas business

# ■Corporate governance system



Audit report, cooperation and information exchange

# CSR action plan

Toyo Aluminium Group conducted CSR-oriented initiatives for seven major subjects per ISO26000 for two years of 2015 and 2016.

To this end, we have defined action plans and KPIs (important performance indicators) to facilitate the activities. Action plans for 2016 are shown together with evaluation results, as shown below.

In 2017 and later, we will review the action plans along the SDG Compass, as reported in "Sustainable Management of Toyo Aluminium Group."

# ■FY2016 Action Plan

2016					
CSR materiality	ltem	zu Action plan	Evaluation	Actions taken	
	BCP (business continuity plan)	Determine directions and schedules	0	Determined directions and schedules (presentation to the management to obtain approval)	
Corporate governance	Communication	Review the structure of CSR report and issue it		Reviewed the structure and issue CSR report annually	
	CSR enlightenment	Perform in-house study meetings and review the contents of the quarterly reports	0	Held meetings seven times a year Improved the quarterly report (via a questionnaire and other approaches)	
	Contact for consultation	Review and correct the manner of reception	0	Dealt with consultation properly	
Human rights	Enlightenment for respecting fundamental human rights	Enlightenment activities	0	Shared sexual harassment and power harassment problems through in-house compliance meetings	
	Safety audit	Execute without fail at all plants including overseas sites	0	Safety audits at 13 domestic plants and three plants in China	
	Patrol by the president	Focus on human errors prevention and risk assessment activities, led by patrol by the president	Δ	Human errors and risk analyzed insufficiently	
	Safety record	Promote disaster preventive measures, fire preventive measures and risk assessment activities	Δ	Safety record similar to the previous year	
	Safety management system (according to OHSAS)  Disaster drill	Develop the outline of the system  Execute an on-the-map drill and joint disaster drill	Δ	ISO45001 based system is spreading to all plants The drill was performed in Tokyo, but not in Osaka yet	
Working practice	Disaster manual	Complete the review work for manuals intended for offices, and develop manuals for each plant	Δ	The manual is under review; slated to complete in the first half of 2017	
(safety & health promotion, risk	Safety activities presentation meeting	Modify the evaluation procedure with respect to the scope of evaluation from workshop to plant	0	The evaluation method reviewed	
management and	Safety training	Execute workplace human error preventive measures and make the	0	Exercised by the workers first in the eastern area (Kanbara	
"bright and healthy workplace" activities)	Salety training	workers experience them actually	_	Works)	
workplace activities)	Safety budget	For timely execution	0	Reported through the patrol by the president	
	Overseas safety	Deliver news every day except holidays; review whom to be delivered and how to deliver	Δ	News distribution started; the distribution method will continue to be studied to find a more efficient way	
	Overseas salety	Standardize the drill	0	Executed at Shanghai office	
		Continue the overseas safety seminars	0	Seminars for safety in Islamic countries	
		Regularly execute lectures on "bright and healthy workplace" activities	0	Executed by each business division	
	"Bright and healthy workplace" activities	Promote the lifestyle improvement program (to spread best practice throughout the group)	Δ	Special safety and health instruction seminars were executed at Yao, Shinjo and Gumma works; same seminars will be executed at other works; they will be performed more widely in 2017	
		Execute stress checks	0	Intended for all employees	
	Environmental audit	Ensure a follow up with the specified Japanese plants and overseas affiliates	0	Executed and monitored full-scale audits for overseas sites	
	Reduction of energy consumption (to a goal of 1% reduction on the basic unit basis)	Reduction through visualization of consumption and improvement activities	×	Energy consumption rates worsened due to the reduction of sales (smaller denominator) and change in the definition of quality; boilers and compressors energy consumptions reduced misking use of loT technologies; air conditioning machines were updated	
Environment	Reduction of industrial wastes (to a goal of 2% reduction on the basic unit basis)	Visualization of industrial wastes reduction activities, and enlightening about the rules for separation of industrial wastes	×	Industrial wastes rates worsened due to the reduction of sales (smaller denominator) and increase in sludge treatment amount; strict the requirements for industrial waste separation and shut down the incinerators of Yao Works	
(harmonization)	Environmental troubles (accidents, faults and complaints): zero	Review the past troubleshooting measures and spread them throughout the plants		An environmental accident - chlorine gas emissions - occurred due to errors in using chemicals; recurrence preventive measures and human error preventive measures were taken	
	Application of ISO14001:2015	Check when to apply for examination for recertification per the revised standard for each plant, and monitor the process	×	Application of new ISO standard proceeded as planned; monitor the process to make sure that it goes well.	
	Satisfaction of revised regulations	Satisfaction of revised regulations (e.g. mercury related rules and regulation)	0	Shared information with the environment protection department of each plant to process the matter satisfactorily	
	Facilitate compliance activities  Strengthen the organization of the compliance promotion	Continue the compliance promotion PDCA cycle	0	Developed a compliance promotion plan	
	group	Strengthen the organization for compliance promotion groups at each plant	0	Executed a compliance validation meeting at each plant	
	Handle the risks that relate to the Antimonopoly Law and Subcontracting Law	Enlighten on compliance with the Antimonopoly Law and Subcontracting Law	0	Conducted a test to measure their understanding of the Antimonopoly Law and Subcontracting Law	
	Strengthen the compliance meetings	Continue holding meetings intended solely for harassment eradication	0	Executed twice a year at each workshop with an average attendance of 96.70%	
	Education of and compliance with regulations	Execute risk assessment activities for chemicals	0	Checked for legal compliance and risk management activities during safety audit at each plant	
Fair business practice	Trade control required for security purpose	Hold the export examination committee and export examination subcommittee meetings	0	Held the export examination committee meeting once a year and export examination subcommittee meeting twice a year	
	Education of the information security management system (ISMS) at regular intervals	Improve education programs and develop human resources	0	Conducted a test to measure their understanding of ISMS; visited and educated the ISMS secretariat; educated new employees and secretariat at each plant	
	Internal audit about ISMS	Monitor the process through identifying problems and taking corrective actions	0	Monitored the corrective actions and analyzed recommendations	
	Spread ISMS throughout the group	Expand the system to include Shonan-Yabata Works	0	Shonan-Yabata Works acquired the ISO certificate	
	Review the ISMS implementation organization	Throughout the company (to enable sharing information with ISMS managers and secretarists of all plants)	0	Resumed the ISMS working committee and held an explanatory meeting at each plant	
	Quality audit	Execute the planned audits at the relevant plants and monitor the result (preparation for execution at overseas affiliates)	0	Quality audit performed once a year at each plant	
Consumer related issues (quality	Quality examination meeting	Execute as required by the rules	0	Quality examination meetings held 18 times	
assurance)	Joint QC activity case-study presentation	Continue	0	Joint QC activity case-study presentation held once a year	
	Application of ISO9001:2015	Check when to apply for examination for recertification per the revised standard, and monitor the process	0	20% of our plants already recertified per the revised standard	
Total California (A. 1)	Support Light Metal Educational Foundation, Inc.	Support Light Metal Educational Foundation, Inc.	0	Continue funding regularly	
Joint activities with and development of communities (social	Contribution to communities	Execute contribution to communities (e.g. cleaning and blood donation)	0	Executed various community contribution activities	
contribution)	Attend community's events	Each plant attends community's events	0	Attended various community events	
			Ť		

Mr. Masao Seki, specially-appointed associate professor of Business Administration Department of Meiji University, CSR senior adviser for Sompo Japan Nipponkoa Insurance Inc.

Toyo Aluminium Group is changing to a more future-oriented entity as can be seen in the report of this year that explicitly describes a CSR-integrated business administration with a motto "create the future" as a commitment of the chairman and president

While the report of the previous year described that the company took the first step toward integrating CSR into their business strategies, the report of this year identifies CSR materiality and associates them with SDGs, which shows the company's advancement in CSR-oriented initiatives.

## Points to be appreciated

- The president emphasized the importance of development of human resources and their attitude to warrant satisfactory result of CSR-oriented initiatives. He thinks that both the management's responsibility and employees' competence are important, and he requires them to put their heart and soul into their work so that they can achieve the CSR initiatives, not superficially.
- The president emphasized achievement of both the social and corporate values on a long-term basis. It is clear that he, as a businessman, has a strong will to achieve integration between CSR and business.
- The company could successfully identify five materiality items including "innovation toward the future" as the first challenge. This is an evidence of the company's attitude that gives priority to contribution to SDGs through their business.
- It is not clearly visible how B to B material suppliers can contribute to sustainable societies. The company prepared feature articles as a means for making it visible to us. They are effective also for giving inspiration to employees.

# Recommendations for improvement

- Improve and continue Stakeholder Dialogues: it should show processes and comments more specifically in a transparent manner.
- "CSR Materiality 1: Innovation toward the future" features an excellent technology and displays it well. However, I cannot imagine how it will be or will become able to impact the society. Figure out better ways to display it.
- Following the step for identifying CSR Materiality items, define KPIs. To achieve the vision of "create the future," it is necessary to define not only annual goals but also mediumor long-term goals for e.g. greenhouse effect gas reduction.
- The report said that the company is going to define the ideal figure of the company through "participation by all employees." To this end, this CSR report 2017 should be used as a dialogue tool to extract ideas.

#### Afterword

Along the directivity of "create the future" identified by CSR report 2017, I hope that the company make continual, steady efforts to achieve CSR-integrated management of business in a consistent manner.



Reply to the above third-party's opinion

Masahiro Yoshida, manager of CSR Promotion department, Managing Executive We thank Mr. Seki, specially-appointed associate professor, for his advice and recommendations on our CSR REPORT 2017 and the directivity of our CSR-oriented initiatives.

We have changed our CSR-oriented business activities from the defensive one in the last year to offensive one in this year and later with a concept of "create the future," which will have to be implemented from a medium to long-term viewpoint.

We will, according to the guidelines "SDG Compass," identify such CSR Materiality items and KPIs that are consistent with the Toyo Aluminium Group's advantages with a view to contributing to sustainable societies.

# **Corporate Profile**

# **Business overview**

Trade name Toyo Aluminium K.K.

President Hiroshi Yamamoto

Head Office

6-8, Kyutaromachi 3-chome, Chuo-ku, Osaka, 541-0056 Japan

Establishment

12 May 1999 (the former Toyo Aluminium was established on 7 April 1931)

- Paid-in capital 8,000,000,000 yen
- Number of employees (as of 31 March 2017)
   2.517 (Consolidated).
  - 2,517 (Consolidated), 1,459 (Nonconsolidated)
- Shareholder

Nippon Light Metal Holdings Co., Ltd., 100%

# Major business fields

#### oil

We develop and supply original aluminium foil products using our unique technologies and know-how. We also offer high-functioning and high-performance materials of our lightweight but high-performance aluminium foil available for manufacturing future products.



#### Powder and paste

We develop products in search of higher aesthetic values, but also to improve their functionality. We have contributed to the growth and development in the fields of chemicals, electronic materials, automobiles and aerospace by offering our aluminium powder and its applied technologies.



#### Solar cell related products

We have developed a division applicable for business fields for environmental protection such as solar cells and other growing markets. In addition, the division is paying particular attention to overseas solar power generation businesses, especially in China, and offers products with its unique technology.



#### Daily necessaries

We manufacture and sell daily necessaries and food containers of aluminium foil and packaging material of paper using our unique marketing power oriented closely to the daily life of the people and production technologies applicable to the material.



# Global Network







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