Re-Tem ECO Times

On September 22, 2012, Akira Nakajima, the President & CEO of Re-Tem Corporation declared "Yacchimer bet" in the headquarters in Tokyo. As environmental issues are intensifying every year, Re-Tem began to move on its own.

Environmental issues are a matter of life-or-death

Ryoichi Yamamoto, an honorary professor of Tokyo University points out that the tipping point (critical point) of life on Earth is in 2025, and that there is a high possibility of the ecosystem starting to collapse that year. "Earthquakes and tsunamis are natural disasters. However, the one which occur without sufficient preparation is man-made disaster. We should take actions for environmental issues, with no excuse like it was out of our expectations", said Nakajima. "I want everyone to consider environmental issues are a matter of life and death that involves your entire life, your children and grandchildren. I, myself take it as the matter that involves the fate of human beings."

Let's Be Eco Punks

The word "Yacchimer bet" has a meaning that make up your mind and make a start with the work left pushed back.The environmental issues are driven to an unmanageable level. Re-Tem will move no matter what others do. No action leads us nothing. Frankly, this is why I say "Yacchimer bet". Nakajima says "Let's Be Eco Punks". The word punk may remind you of bad boys who hate authority; however, even though they invite disgust, they directly assert the facts and their thoughts. Nakajima thinks that punks are close to the "Yacchimer bet" mindset in the meaning of keep on moving.

Strong Management

Now, "Yacchimer bet" what? This clearly refers to the enhancement of eco-management. Eco-management manages the overall regional environment, i.e. when we talk about material, understanding the material flow accurately to circulate the material. Resources must be recycled as the natural resources will eventually be exhausted. The environment will be destroyed even further by more digging. Under such circumstances, there are only a few companies who can manage the environment. We begun taking action on our own, aiming to be an eco-management company which connects all stakeholders horizontally.

Active in Japan & Abroad

Re-Tem has already started enhancement of our management ability. In order to perform advanced environmental management, first, our own company must be operated under advanced management.

Re-Tem has a department dedicated to management of legal affairs, information, labor safety, and technology development named "RISM". In August 2012 the team elevated to "a division" to enhance its leverage.Moreover, Re-Tem introduced cloud computing to promote smooth operation of the business and revitalization of communication. The company established the world's first feasible recycling process in October 2012 to sort out capacitors which include tantalum, a type of rare metal. Furthermore, taking advantage of the small household appliances recycling law enacted in April 2013, Re-Tem started the collection business for small household appliances in Tokyo and 4 prefectures in Kanto in cooperation with municipalities. The company operates a recycling business in China, and has initiated feasibility research in Turkey.

Reform to Survive

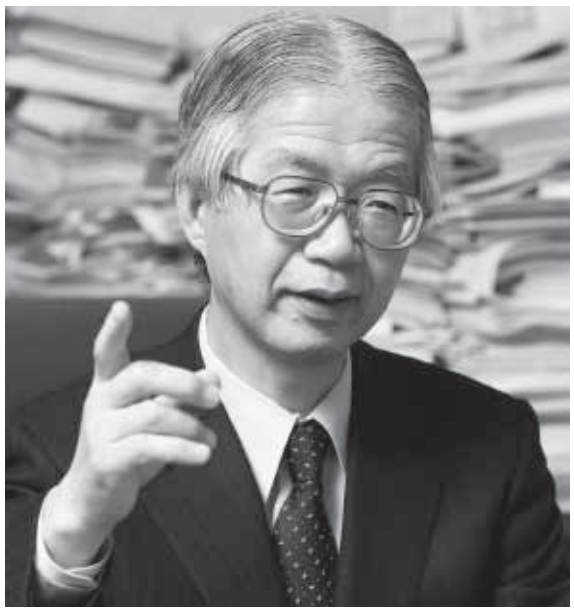
Nakajima has repeatedly emphasized the importance of eco-management. If eco-management is penetrated into society, it will greatly reduce the threat of an environmental crisis. Nakajima says there is no meaning in the work if it does not serve to society. Nakajima says we aim to gain profit through such work, and to utilize it as means to further contribution to the society.

The United Nations (UN) predicts the planet's population will exceed 9 billion in 2050, and the World Wide Fund for Nature (WWF) estimates the resource consumption and environmental impact will become twice of the natural regeneration potential in 2030. The economic and social activities of mankind are seriously affecting the earth, such as global warming and abnormal weather, and expected become worsen markedly in the future.

Contribution

2025 the Critical Point of Life on Earth

Ryoichi Yamamoto, Honorary Professor of Tokyo University



Human beings may be facing a planetary emergency. First, people started feeling the global warming impacts are immediate problems. According to the Meteorological Agency, the average temperature in September 2012 was the highest since the statistical data started in 1898. The highest number ever, 1,731 people died from headstroke in 2010. The death toll is estimated to grow by 40 - 60% with 1 degree rise in temperature. It is thought that 3/4 of the global warming since 1950 is caused by greenhouse gases of man-made origin. Dissipation of the sea ice around the north pole and the Greenland ice sheets has been reported, due to the advanced warming with twice the speed of the global average, mainly caused by decrease of the sunlight reflectance due to the snow ice melting. Particularly, the decline of the sea ice area of the north pole broke records in September, and the volume has decreased to 50% of what it was 3 years ago.

It is believed that 70 - 95% of the dissipation of the sea ice at the north pole is caused by global warming of man-made origin. Abnormal weather in the mid-latitude regions is possibly caused, as a result of the decline in speed of the jet stream due to the dissipation of the sea ice at the north pole during the summer, which induces large meanders. It is assumed that this has caused the heavy snowfalls in the northeastern U.S., the heat waves in Russia in recent years. The abnormal weather is one of large factors in the sudden price increase of grains, such as soybeans and corn.

On the other hand, upon the agreement of all countries at COP18, the international society decided to postpone the start of drastic reductions of greenhouse gases till 2020. Pricewaterhouse Coopers recently reported, the carbon intensity of the world economy (CO_2 emissions per GDP) decreased by 0.7% in 2011. However, in order to control the increase in the world's average temperature to 2 ºC or less, the CO_2 emissions must be decreased by 5.1% annually, which is already too late to keep the 2 ºC target、and concluded we must be ready for an increase of 4 or even 6 ºC.

The reason why the global warming is a concern is that it will cause irreversible climatic changes which will continue for 1,000 years, even if the CO_2 emissions could be eliminated completely. In 2009, 155 scientists issued the Monaco Declaration, due to concerns over the ocean acidification caused by the absorption of CO_2, which is affecting the ecosystem. In 2012, 2,600 scientists signed a consensus statement to save the coral reefs. Biologists believe that all life on earth is approaching a critical point, and are warning that 2025 when the human activities occupy 50% of the surface of the land may become the tipping point (critical point).

It is needless to say that this planetary emergency is caused by the population growth, and continuous extensive use and mass disposal of resource energy, aiming for a physically rich and wealthy life. In a sustainable eco-civilization, a stable population, use of natural energy and 100% recycling of exhaustible resources are at least required. Such efforts are just now being started.

<Let's Roll!> やっちまーへ Because Nobody Does It

World's 1st. Tantalum Capacitor Recovery Line

R&D in Mito toward utilization, NEDO subsidized project

On October 1, 2012, Re-Tem announced that a feasible line for the separation and collection of tantalum capacitors used in electronic substrates was constructed in their Mito Factory. The mechanized separation and recovery line for tantalum capacitors is the first in the world. Re-Tem will cooperate with tantalum refineries to recycle tantalum in future. Tantalum is a type of rare metal. Many of these capacitors are used in electronic substrates, such as in PCs, servers, appliances and etc. Conventionally the capacitors were sent to landfills.

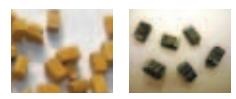
The government designated five rare metals including tantalum as "prioritized metals to be recycled (tantalum, cobalt, tungsten, neodymium, dysprosium)", to establish technologies forwardly.

Re-Tem implemented a "R&D project for tantalum recovery from electronic substrates and etc. for practical use" March 2011 to March 2012 in collaboration with the National Institute of Advanced Industrial Science and Technology (AIST) and Waseda University. The project costed approx. 100M yen partly subsidized by New Energy and Industrial Technology Development Organization (NEDO).

Besides Re-Tem's technique such as the separation and concentration processes of electronic components, the line is equipped with a new air flow separator and inclined low intensity magnetic separator developed by AIST. The recovery of the tantalum capacitor with the new line achieved more than 90%, the sample of which Mitsui Mining & Smelting Co., Ltd. analyzed and judged good enough to buy.

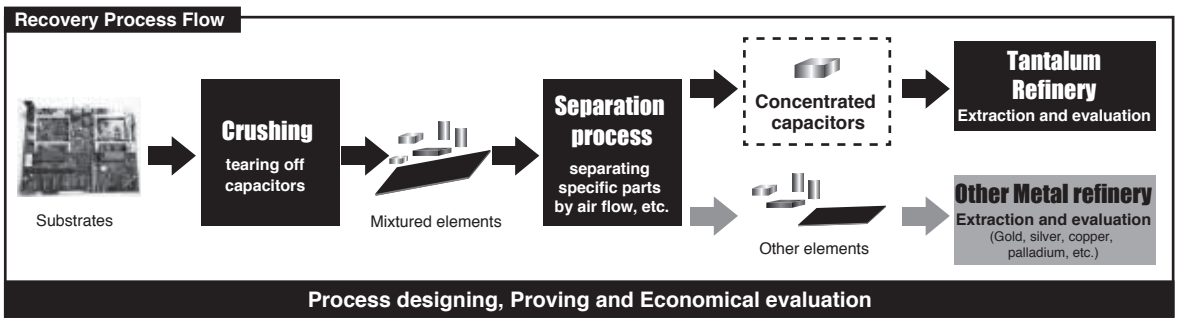
Yoko Urade the General Manager of the Sustainable Management Department in charge of the project mentioned "By separating and concentrating tantalum capacitors at Re-Tem, it can be recycled as a metal, not becoming a slag after smelting process. By this way we will contribute to the closed recycling of tantalum".

Accepted by refineries
Tantalum Grade 40% Max



Tantalum Capacitors

Concentrated Tantalum Capacitors	
Weight ratio	0.9-3.5%
Recovery ratio	53-67%
Concentration ratio	38-57
Grade	69-97%



1st in China Pilot project of manifest slips on industrial solid waste

Implemented in TEDA, 70 companies participated

From April 2011 to January 2012 in the Tianjin Economic Technological Development Area (TEDA) located in China, Re-Tem took the lead in performing the design and testing of the report system by manifest slips of industrial solid waste. With the exception of hazardous waste, use of the manifest on waste treatment is not legally imposed in China.

About 30 waste generators and 40 collectors joined the pilot. As a result, recycling method and waste flow from generation to the landfill were understood by the type and volume. Enhancing the traceability in the future, Re-Tem proposed a measure which is to temporarily collect all type of waste in one specified collection center, and have them pre-treated before sending them to recycling companies. TEDA government in 2012 conducted themselves a similar pilot in Nangang Industrial Zone.

TEDA is a national economic development zone where global companies such as the Toyota, Samsung, Motorola and many others have their production bases.

Kick-off meeting of TEDA Manifest pilot project

Surveying at a Chinese Recycler

Upon Re-Tem's proposal in 2008 on the concept of an Eco Center as the management platform of the overall TEDA, the center was established in 2009 and named "Tianjin TEDA Eco Center". The center is managed under the advice of Re-Tem, and provides companies in the area with business matching opportunities, technology info and environmental education. The manifest project was also as a part of eco-management by the center.

Re-Tem is now proposing that technical exhibitions, environmental education events for children be held in the facility.

Feasibility Study on Waste Recycling in Turkey

Turkey Version WEEE Directive Enacted in 2013

May to November 2012, Re-Tem members flew toTurkey and studied current status of recycling appliances and electronic devices, which are done by manual process. It was performed under the collaborated project with Toyota Tsusho Corporation, and was subsidized by Ministry of the Environment. Re-Tem made a analysis on how much gold, silver and copper could be recovered, on the assumption of performing mechanical process.

The WEEE directive requires EU member countries establishment of E-waste recycling system to stop destruction of the natural environment caused by inappropriate disposal of E-waste. Since Turkey is aiming to become an EU member, they will enforce Turkey version of WEEE Directives from May 2013 and they are hastily attempting recycling system development. Japan has recycling technologies of the leading edge in the world, and is expected to support with introducing mechanical recycling process of E-waste.

E-waste Disassembly by a Recycler in Turkey

<Let's Roll!> やっちまーへ In Japan, In China

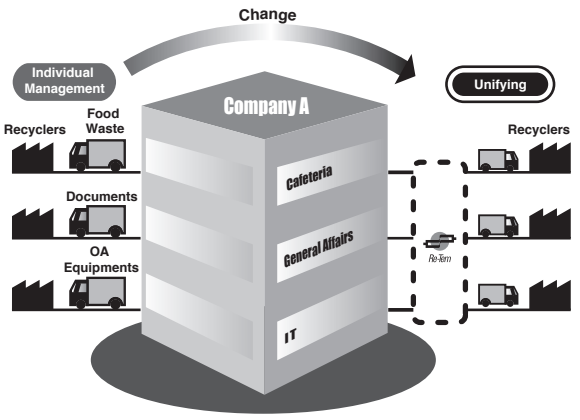
Japan

Nationwide Management of Waste in Offices and Buildings

Re-Tem is making a conscious effort towards unified management services of recycling, which is geared for clients operating broad based business. The point of the service is to provide appropriate waste disposal and risk management at the unified specification nationwide, to release clients from clerical troubles and concerns on related risks used to be caused with their plants and branches. Re-Tem makes a clear distinction from other building custodial services, by utilizing the know-how gained through their own plant management and the service companies network of Japan Recycle Improvement Committee (J-RIC). We interviewed Yuji Sawamura, the manager of the Tokyo Sales Dept.

Yuji Sawamura

■ **Concept of Waste Management of a Whole Building**



Unified Waste Management Service by RISM method

Increasing Orders

We have received orders for the service from clients in a broad range of industries nationwide, such as major beverage manufacturers, paper manufacturers, leasing companies, OA equipment manufacturers, and many others.

Attraction of the Service

The clients are very concious of compliance and risk controls, as they could potentially be arrested for a violation of laws, without even knowing, caused by plants and branches nationwide. They need to unify waste management procedures of the plants and branches to reduce risks. Also it appeals to the clients in cost aspect. If for the unified price, it is easy to judge value of the service.

Advantage is a nationwide network (J-RIC)

Contents of the service

In the case of recycling metal scrap and mixtures for Company A who has operation bases in four locations in Japan, Re-Tem serves as the sole contact to manage the whole system as well as helping those bases with clerical tasks, such as manifest slips, reports to the municipalities, price setting. The recycling work is implemented either by Re-Tem or J-RIC member recyclers nearest to each of the client bases, while Re-Tem coordinates all the recyclers.

New Challenges

Re-Tem mainly takes up metal waste, however we are to expand into an extensive waste management service in the future to meet the needs of clients. For example, providing a packaged management service of waste disposal of a whole headquarters building of a business giant. Re-Tem aims to receive all types of waste including daily trash and etc. whether or not it is metal, utilizing Re-Tem's business network. They even hope to apply such service in a wide area.

■ **What is J-RIC?**

J-RIC is an abbreviation of the "Japan Recycle Improvement Committee". It was organized in 1998 by Re-Tem as the leader to aim at unifying quality of recycling services from Hokkaido to Okinawa, at over 50 recycling factories.

Advanced Waste Management Services

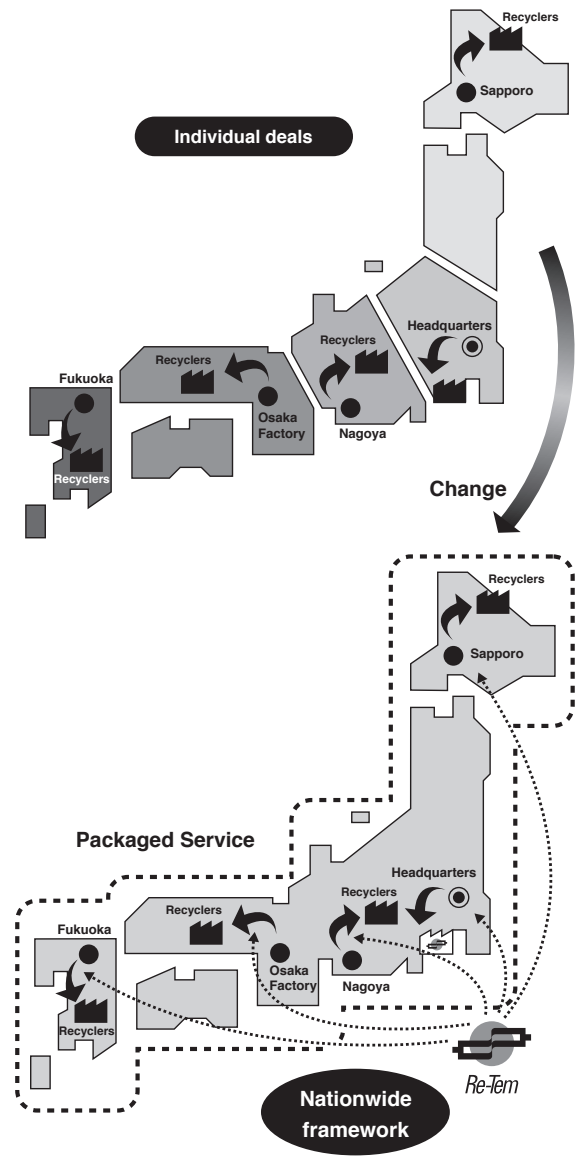
Requirements of today

Companies with high consciousness, establish their own plants for recycling of their waste. However, waste recycling consists of complex factors and expertise such as laws and regulations being individually adopted by the municipalities, yearly revised national laws. Companies seem to have a limitation in self waste management. We continually strengthen our expertise to provide highly advanced services to meet the requirements of today.

Vision of our services

Our goal is to develop long-term reliable relationships with clients as a specialist in waste management services. In fact we have been supporting a major financial device manufacturer on long-term basis covering their nationwide bases.

■ **Concept of Unified Waste Management**



China ★★★★★★★★★★★★★★★★★★★★★★★★★★★★

"Yacchimer bet" with Japanese advanced technology

President of Taicang factory, Xiaotao Liu & Family

Factory staffs

President Xiaotao Liu commented "entire factory is coming as one to become a leading factory."
We have a plan to organize a dedicated team for both increasing sales and accelerating the resource circulaton in China, which we believe, encourages establishing a transparent waste management in the society.

Taicang factory improved processing speed with a new plastic crushing machine installed in 2012. High motivation enhances staff's activities.

<Let's Roll!> やっちまーへ developing an urban mine

Recovering Useful Metals from used Small Appliances

Business experience with more than 30 municipalities

Re-Tem in cooperation with municipalities is focusing on the recycling of small appliances disposed of by households. From 2008 to 2012, Re-Tem implemented a model project of the government to recover useful metals from small appliances in Ibaraki. Having contracted with more than 30 municipalities mainly in Kanto and started recycling small appliances, the company gained the know-how and experience on collection strategy, efficient transportation, recycling methods and awareness building. In April 2013, the small household appliances recycling law was enacted, which is adding momentum to municipalities' interest. Re-Tem will continue to further enhance their activities.

[Example]

Collection of small appliances in Nerima-ku

Re-Tem recycles collected products

In September 2011, Nerima-ku, Tokyo started separating small appliances from bulky waste, also placing collection boxes. Besides Nerima-ku appreciate rare metals and precious metals included in small appliances, they are to reduce the volume of waste in their area. The appliances sorted out of bulky waste are disassembled at their own recycle center, and then transported to Re-Tem. Nine items, such as mobile phones and etc. collected in the boxes in town are then recycled at Re-Tem.

Flow from Collection to Recycling

(In the case of Nerima-ku, Tokyo)

Collecting

Collection boxes placed in 5 city facilities (increased to 9 locations by October 2012). Since collected items in the boxes quite possibly contain personal information, boxes are locked and placed in public locations where security guards are stationed at all times. The collection box is designed with intensive functions, such as to prevent cans and pet bottles thrown into. On average, about 200 mobile phones are collected per month from the boxes.

Small Household Appliances Recycling Law Enacted in April 2013

Description

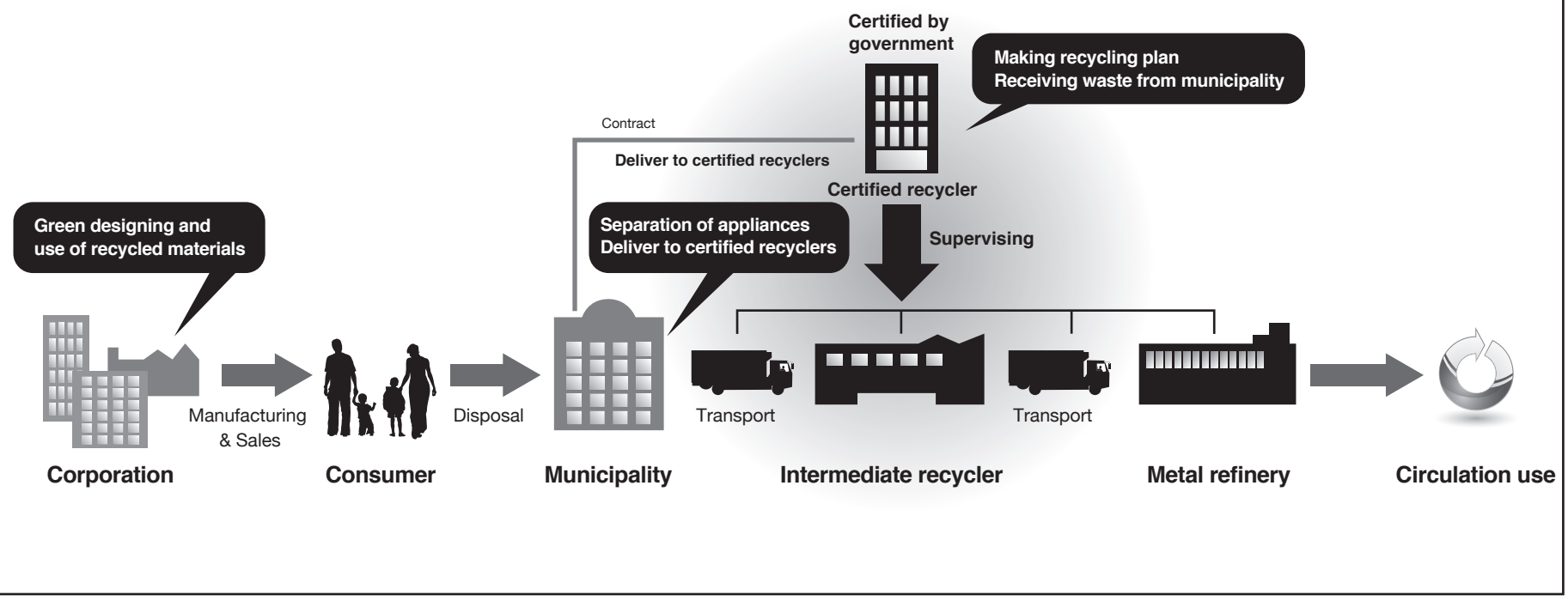
What is the Small Household Appliances Recycling Law

Conventionally, most of the small appliances disposed of by households have been collected by municipalities and sent to landfills. However, these appliances include rare metals essential for high tech products, not only precious metals, such as gold and silver. Sending the metals to landfill without recycling has raised questions on the points of securing resources and establishing a recycling oriented society.

Under such circumstances, the government approved this new law in August 2012 to have it enacted in 2013. For the waste reduction and resource circulation by recycling appliances, the laws requires cooperation among all parties concerned, such as households as waste generators, municipalities as collectors, intermediate recyclers and metal refineries

Moreover, introduced a new system to certify recyclers, who play key role of the national recycling scheme. Reliable and appropriate recyclers are only be certified by the government to obtain contracts on used appliances with municipalities.

■ Conceptual Diagram of Small Household Appliances Recycling Law



A recycling factory of the near-future

Re-Tem pays particular attention to the design of the factory and office. Re-Tem's Tokyo factory was designed by Taku Sakaushi, who is an architect as well as a professor of the Faculty of Engineering at the Tokyo University of Science. Sakaushi has designed numbers of modern architecture to date, mainly housing and welfare facilities. The designs of Sakaushi are highly acclaimed in and out of Japan, and the Tokyo Factory won The Chicago Athenaeum Museum of Architecture and Design International Architectural Award in 2007. The Taicang Factory (China) and the Myojin Office (Tokyo) were also designed by him.

2 Disassembling

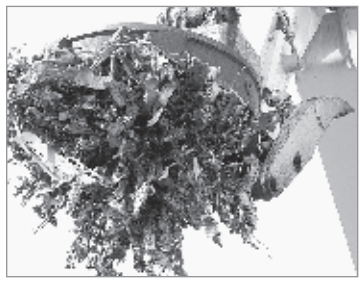



Once a month, city staffs pick up the items in the collection boxes in 9 locations in Nerima-ku, to deliver them to the Nerima-ku Recycle Center. The mobile phones are hole-punched to destroy the personal information. In the recycle center, the appliances disposed as bulky waste are manually disassembled, to separate the motors, electronic substrates and cables from others.

3 Delivery to Tokyo Factory

The capacity of the Tokyo factory is 864t per day. The small appliances received from Nerima-ku are transported to Retem Tokyo factory in Tokyo Super Eco-Town, Ota-ku. September 2011 to July 2012, about 46 tons were received .

4 Crushing and Fine Separation

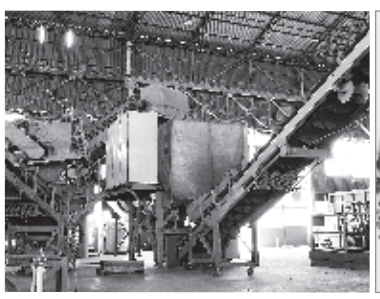



Waste including small appliances is thrown into the crusher by a heavy machinery, and becomes a flaky mixture of metal and resin. Lightweight materials like plastics are removed by wind power to get the metal mixture, from which the iron is sorted out then by magnetic force. And the remainder is separated by weight and size in a rotary screener and vibrating sorter, to make a nonferrous metal mixture.

5 Delivery to Mito Factory

The nonferrous metal mixture is transported to the Mito factory in Ibaraki.
Mito factory is about six times the size of the Tokyo factory, and performs highly concentrated separation and recycling of both iron and nonferrous metals far better than general scraps.

6 For Recovery of Highly Concentrated Material




The nonferrous metal mixture received from the Tokyo factory is again crushed and separated, to extract the gold, silver, copper sediment, aluminum, stainless steel and etc., and to be shipped to smelters and aluminum alloy manufacturers.

<Let's Roll!> やっちまーへ With children

Children touring the Tokyo Factory

Challenging the disassembly

Seeing is Believing

Currently Re-Tem offers programs such as seminers, events, site tours and so on, designed for a variety of stakeholders such as school children, university students, companies, goverment officials and etc.

62 Factory Tours with 1,059 People in 2012

In FY2012 (August, 2011 - July, 2012), Re-Tem provided 62 factory tours including 1,059 people at the Tokyo Factory and Mito Factory. These figures show that Re-Tem provided factory tours once or more per week. A wide range of people and organizations visit our factories, such as politicians, public administrators, companies, schools, common citizens, media, and overseas inspection groups. Re-Tem believes that it is best to show the sites in order for people to sense the environmental issues, and we have aggressively been accepting factory tours from the viewpoint of "environmental education".

Parents & children tour at Mito factory

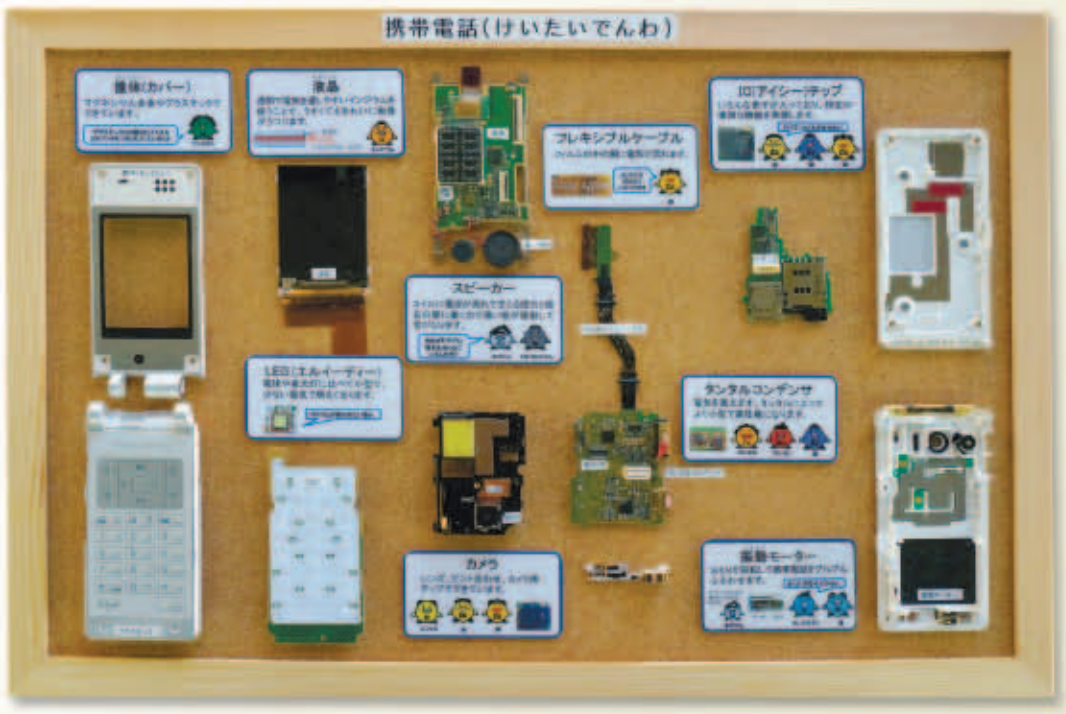
■ **List of Visiters** *August, 2011-July, 2012*

Category	Visitors
Government and Municipalities	Economic Affairs Bureau, Ministry of Foreign Affairs (OECD)
	Environmental Bureau of Tokyo Metropolitan Government
	Ibaraki Prefecture Planning Dept.
	Fuchu City Office
	Ministry of the Environment
	Mitaka-shi Electoral District
	Shizuoka Urban Cleaning Conference
	Ibaraki Eco-Frontier Kasama
Universities	Hosei University
	Waseda University
	Ibaraki University
	Science University of Tokyo
	Shibaura Institute of Technology
Schools	Minami-Nagareyama Elementary School
	Saitama City Office
	Sennan Elementary School
	Daiichi Kameido Elementary School
	Shujitsu Junior High School
Organizations	Tokyo Waterfront Recycle Power Co., Ltd.
	Japan International Cooperation Agency (JICA)
	Japan Environmental Sanitation Center
	International Green Purchasing Network (IGPN)
	Japan Industrial Waste Management Foundation
Overseas	Federation of Industries of the State of Sao Paulo (FIESP)
	Sino-Japan Friendship Centre for Environmental Protection
	Korea Environment Corporation
	The Peninsula Hotel (Hong Kong)
	Tianjin Binhai Business Affairs Committee
	International Economic Cooperation Co., Ltd.

■ **Education and Training Programs**

Program	Applicants	Subject	Outline	Remarks
Environmental Event Collecting small appliances & playing environmental games	Adults, Elementary & junior high	Resource recovery and metal recycling	・Recovery of used small appliances ・Quizzes and games	・Charged
Re-Tem Environmental Class disassembly of mobile phones at the Re-Tem Tokyo Factory (also available at requested place)	Elementary school, higher grade Junior high, Parents	Importance of recycling through disassembly of mobile phones	・Observation of Metal recycling process at factory ・Resource issues and recycling ・Disassembly of mobile phones	・3 hrs. ・15 pairs (30 people) ・Charged
Tokyo Super Eco-Town & Re-Tem Factory Tour Visiting advanced recycling facilities.	For adults (Residents, companies, governments)	Resources & waste problems and the recycling flow	Present staus and problems of resources and waste ・Recycling factory tour (e.g. Metals, food, construction waste, and biomass energy)	・4 hrs. ・About 30 people ・Charged
Environmental Seminar Lectures by environmental experts on various themes	For adults (Residents, companies, governments)	The world's environmental issues and measures in Japan (Selectable)	・Explanations for beginners with slides and materials ・Questions & answers	・3 hrs. ・from 20 people ・Charged

M·O·B·I·L·E P·H·O·N·E·S



Mobile Phone Disassembly Class

"enlightening!", "I'll separate items before throwing away." These are the comments we received from participants. They actually challenge the disassembly and create a board of samples to take home while learning resource depletion and strong needs of recycling.

Contact: Sustainable Management Department
info@re-tem.com

<Let's Roll!> やっちまーへ together

Diverse Personnel gather with Environment as the Keyword

Extremely diverse personnel work at Re-Tem. You can find Today's Re-Tem through them.

Eliminating CFC gases by 10 times in the future

Junko Tachihara
Material Recycling Group, MITO Operation Department

The word "recycling service" in the job ad, made me think of a shop that repairs and sell broken products. I was shocked to find out Retem destroy used products to recover the resources. Untill then I had not imagined of such a business. Although disassembly of metal waste is a tough job, I never disliked it because I am proud of doing good to environment.

I eliminate chlorofluorocarbon (CFC) gas, and I am the only female staff in my team. The appropriate treatment of CFC is obligated by law, and we eliminate from business-use air conditioners, freezers & refrigerators and vending machines. I was assisting others at first, and in 2007 the company recommended that I study for a technical license for eliminating CFC gas. I was truly grateful for the opportunity.

In 2013, 8,000kg would be coming in, and the elimination volume would reach 10 times that of the previous year. An extra staff joined and the capacity of the CFC recovery machine also increased. We say "it's done" on site just after we are through with all items, and I really love that moment.

Considering a long span of 5 years and 10 years

Yoshiko Seto
Sustainable Management Department

I studied mechanical crushing and sorting as a theme in the Graduate School of Science and Engineering of Waseda University, and joined Re-Tem in 2008 through the introduction of a professor in the laboratory. Since then, I have experienced various types of work, such as Ibaraki model project to recover rare metals from small household appliances, the project to recover tantalum capacitors from electronic substrates, and research of e-waste recycling in Turkey.

I believe the technology must be evaluated by the content. I wanted to be involved in environmental business so as to challenge myself being of use to society, not for my own achievements. There is no meaning in my job if it is not put in practical use in society. I believe that the results of the environmental technology must be evaluated in a long span of 5 and 10 years.

Enhancing the visibility in China as "Management Service Company"

Xu Liu
China Business Department

[Liu] TEDA Eco Center was established March 2010, based on the suggestions of Retem, in the special economic zone in Tianjin named "TEDA", which is a model area of the circulation based industry of China. The center manages the overall environmental preservation of TEDA.

We conducted research in TEDA for several years as recycling industry's overseas expansion projects supported by METI. The environmental business is part of China's national strategy for economic growth. We feel needed when we hear the clients say they entrust the research only to Re-Tem.

Zheng Huang,
Sustainable Management Department

[Huang] Re-Tem is meant for the environmental business between Japan and China. The opportunity for me to join Re-Tem came through a professor of a graduate school in Japan, where I studied environmentology. Right after I joined the company, I was assigned to a METI's research project on waste recycling status of overseas, also the start up of a subsidiary in Beijing. I still remember that those work brought me a sense of accomplishment. The attractiveness of Re-Tem is opportunities open to anyone. I wish to utilize the advanced technology and experience I have gained with Re-Tem in contribution to a sustainable society.

Doomsday clock went ahead 22 minutes from 2011.

The environmental doomsday clock announced in September 2012 was at 9:23, went ahead significantly by 22 minutes within a year. The clock sets that the end of mankind is when it reaches 12:00.

Each year the Asahi Glass Foundation conducts a survey of intellectuals' world wide, and announces the time on the doomsday clock. Climate change was the largest response in the survey as the reason for the advancement of the clock in 2012. As obstructing causes, large number responded "pursuit of economic profit" and "global economic system".

1992	07:49
2000	08:56
2005	09:05
2011	09:01
2012	**09:23**

Video clip "Ecomotion" Now Showing
The images of time, environment and recycling. Produced in February 2013. 6 minutes. http://www.youtube.com/user/ReTemCorp

NEWS DIGEST 2012

Nakajima, President & CEO gives a speech in Malaysia

Akira Nakajima

On October 10, 2012, Akira Nakajima, the President & CEO of Re-Tem gave a speech at "The 3rd International Greentech & Eco Products Exhibition & Conference Malaysia" held in Malaysia. He introduced collaboration cases by public-private in Japan concerning recycling and waste management. He also spoke about the 100% waste recycling in the Re-Tem Tokyo factory. The event recorded 86,372 visitors.

Recognized as a leading industrial waste recycler

Under the MOE's recognition system enacted in April 2011, Re-Tem was officially recognized as a "leading industrial waste recycler". In this system, prefectures and municipalities examine applicant companies in terms of the openness to the public such as the disclosure of business permission, maintenance status of facilities, environmental considerations and ISO 14001 certification, as well as reviewing use of electronic manifests, financial condition, legal violations and etc. As of the end of July 2012, only 382 among approx. 120,000 recyclers (including transporters) in Japan have been officially recognized as leading companies.

Ibaraki-machi Hinuma Environmental Festival

On October 14, 2012 in the "Hinuma Environmental Festival" Re-Tem held a panel exhibition, gave quizzes to visitors explaining the importance of metal recycling, and collected small-sized e-waste including mobile phones and game machines.

The Beach Cleanup in Jonan-jima

Employees and their families voluntarily participated in the "Beach Cleanup in Jonan-jima 2012" held in Jonan-jima, Ota-ku where the Tokyo factory is located.

Street cleaning and illegal damping patrols in Mito

The Mito factory regularly cleans the streets, also performs illegal damping patrols in the area around Mito City.

Headquarters & Factories "Got in motion!"

The Myojin office is a non-territorial office.

Akira Nakajima, President & CEO first mentioned "Yacchimer bet" when the corporate philosophy was drawn up in 2010. He reserved the phrase until the organizational reform took place in August 2012, and the non-territorial office was opened at the time. He intended to spread the "Yacchimer bet" spirit within the employees by providing an open organization and work place. Six months after starting the new office, we went to the sites to see how it goes.

Tokyo Factory

Don't say "No" to what's brought in and "Yacchimer bet"

Increased recycling volume by extended work hours.

The Tokyo factory started operation in 2005, mainly receiving metal waste in the Tokyo metropolitan area.The recycling volume increased continuously and the shipments of recovered iron in 2012 is up 22% y/y. They aim for further increases.By enhancing cooperation with the sales, Tokyo factory started accepting pre-notified loads on the weekends and national holidays.Takamitsu Ichimura, the Tokyo factory manager mentioned his mindset of "take whatever brought in". In November they started using a new warehouse to store the received items, also adopted a new rule stopping the machines and having all the staff assists in unloading the waste when extraordinary volume is received. As they focus on hiring new staff and enhancement of the training, staggered commuting is to be introduced once adequate staffing is secured. Ichimura who was born and grew up in Mito, says "Yacchimer bet" is a phrase used to stimulate team chemistry, meaning let's roll it. The Tokyo factory is steadily reforming themselves to achieve the ultimate goal of a 24 hour operation.

Headquarters

Upgrading RISM

Enhancement of management leverage

R ISM is the abbreviation of Re-Tem Integrated System of Management. An integrated management system of the 4 official standards of the environment, information, labor safety and health, and risks, which has been operated all across the factories, sales and administration in Re-Tem. The PDCA-cycle nearly got rooted in the company. In an attempt to utilize the management know-how gained till today for the external management services, as well as for further evolution of RISM, the company reformed RISM team with broaden responsibilities in August 2012 and named it Management Enhancement Division. Experts in legal affairs, information, labor safety and technology development are assembled in the division. This division will serve essential function since Re-Tem aims to be an advanced management service company. We can say this new organization was born with Nakajima's passion for "Yacchimer bet".

Mito Factory

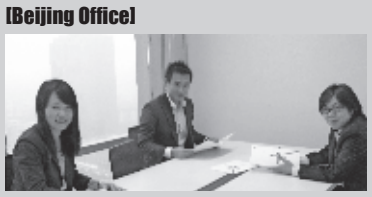
"Yacchimer bet" for the area

Recycling metal waste of local residents

The Mito factory is a wide area recycling designated factory of many information device manufacturers, possessing advanced technology required to recycle metal and plastic composites with nearly zero residue. After the factory was constructed in 1970, many people moved in its surroundings. The factory grew with the area. It comes as no surprise "we roll" for the area. The clean center managed by Ibaraki-machi can not treat nonstandard metal waste disposed of by households. Residents used to search for a recycling factory to carry waste great distances on their own. "If we take it, it will prevent illegal disposal".Yasuhiro Okawa, the Mito factory manager proposed the acceptance of the waste to Ibaraki-machi. The service started November 2012 with a safe receiving yard near factory entrance. "People tend to have a bad image of waste treatment services. People get recycling-conscious by knowing that Re-Tem returns waste to resources". We go on enhancing cooperation with municipalities and residents to further contribute recycling promotion of the area.

Overseas Offices as well やっちまーべ <Let's Roll!>

[Beijing Office]



Name:
Re-Tem (Beijing) Environmental Technology & Management Co., Ltd.
Location:
Beijing
Business:
Research and consulting service for municipalities,Chinese and Japanese companies on resource circulation and energy saving

[Seattle Office]

Name:
Re-Tem Global Eco Management Inc.
Location:
Seattle, Washington
Business:
Research and consulting service for municipalities, US and Japanese companies on resource circulation and energy saving

■ **Outline of Re-Tem**

The resource recycling and management company established in Mito, Ibaraki in 1909. In 1993, a high-end crushing machine "Process I" installed in the Mito factory achieved zero emissions of metal and plastic composites. In 2005, constructed the Tokyo factory in the Super Eco-Town in Jonanjima, Ota-ku, Tokyo.The company's main business are recovering iron, precious metals, and nonferrious metals from waste called the city mine, and consulting service. Headquartered in Tokyo.

■ **Re-Tem Eco Times 2013**

This paper is the 2012 Ver. "CSR Report" periodically issued by Re-Tem. We reported this year's CSR activities in a newspaper format, going against many other reports with heavy pages and rather rigid. Reporting period: FY2012 (August 2011 - July 2012). Breakthrough topics were published till December 2012.

■ **Contact (Re-Tem Eco Times and CSR Web)**

Re-Tem Corporation Management Enhancement Division Public Relations Gr.
2-15-2 Soto-Kanda, Chiyoda-ku, Tokyo 101-0021 publicity@re-tem.com