

Kawasaki Green Innovation Cluster

MEMBER COMPANY'S PRODUCT AND SERVICES

NOVEMBER 2019



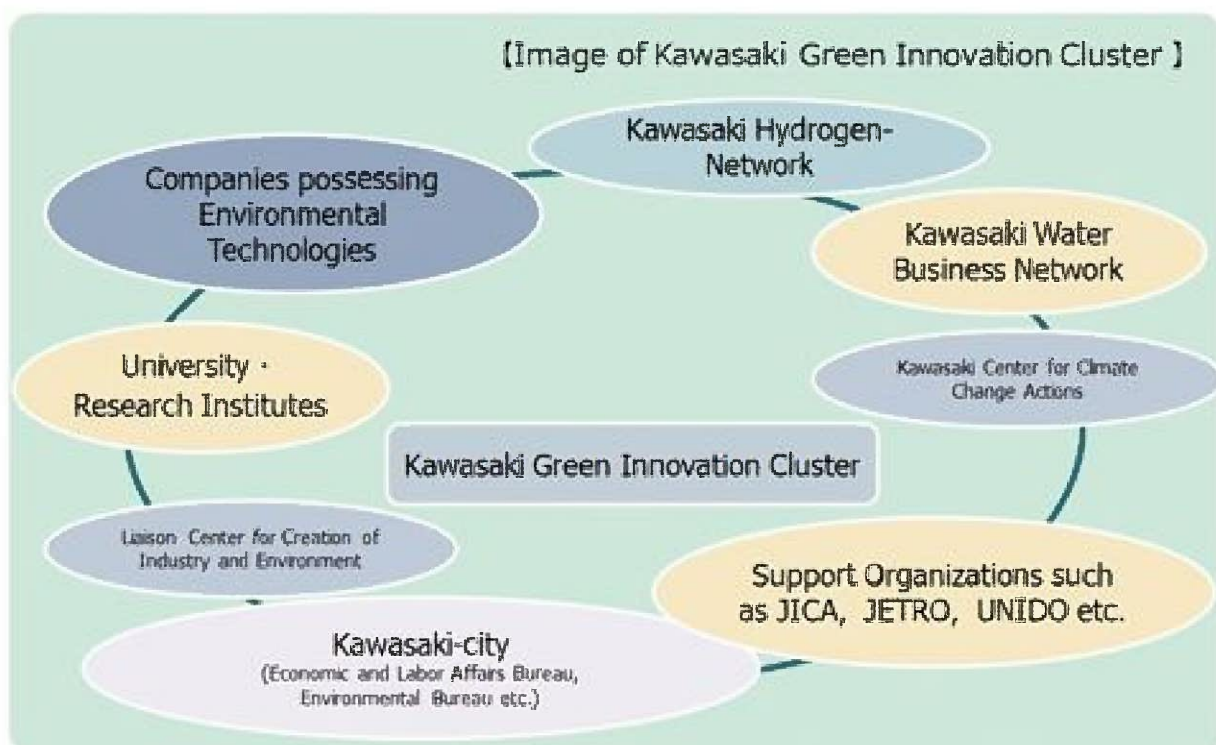
**KAWASAKI
GREEN
INNOVATION
CLUSTER**

KAWASAKI GREEN INNOVATION CLUSTER

is a network established in April 2015 for promoting the four mainstays of the “Promotion Policy on Kawasaki Green Innovation”

1. Revitalization of the regional economy by creating and promoting environmental technologies and industries
2. Application of excellent environmental technologies and industries to the life of citizens
3. Application of excellent environmental technologies and industries to the life of citizens
4. Contribution to international society using the city's environmental technologies and industries

It aims to improve the environment through industry-university public-private partnerships and promote industries and international contribution so as to form a new society.



**Member Company's
Products and
Services**

November

2019



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MEMBRANE TREATMENT WATER PURIFICATION DEVICE

Company	A.I.T.Co., Ltd.	TEL	+81-3-3967-3251
Address	2-11-19 Shimura, Itabashi-ku, Tokyo, Japan	URL	www.hdropure.co.jp

PRODUCT OVERVIEW

A membrane filter with accuracy up to 0.0001 μ that can remove ultra-micro bacteria viruses and chemical substances radioactively.

Safely, this technology can be used for bottled water and beverages manufacturing, using water from any source that cannot be used for drinking.

This filter can be used as the main filter for small or large scale operations with ease.

DETAILS

- Raw water can be tap water, underground water, river water or sea water, regardless of quantity
- The processing capacity per model can vary from 5 to 1,500 liters per hour, or more.

VT-2



Carry Pure Pure 2



Water Purifier for Disaster



CENTRIFUGE PRE-FILTER "MULTI CYCLONE"



Company	MDI Corporation	TEL	+81-44-201-6822
Address	3-12-10 Asada, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan	URL	www.mdirect.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

It is a centrifuge pre-filter, which started to be adopted by a company specializing in heat exchangers for waste heat recovery to remove contaminants from water when recovering waste heat. Contaminant removal using only 15% of the cooling tower circulating water with "multi cyclone" makes it possible to reduce blowdown wastewater by 50%, which makes it possible to reduce operation and maintenance cost.

DETAILS

This product uses centrifugal force to continuously remove contaminants with a specific gravity in the same manner as cyclone vacuum cleaners. The process is completed the separated foreign matter is rinsed away with about 15 liters of drain water. Since there is no filter, replacement parts or stopping the pumps are not necessary.

CAPABILITY: It is possible to remove contaminants which are solid and between 20 microns and 2 mm. (The required specific gravity is 1.5 kg/L or more.)

LIFE CYCLE: can be used for semi-permanently.



We have a lineup of products to suit various uses and volumes of water to be treated.

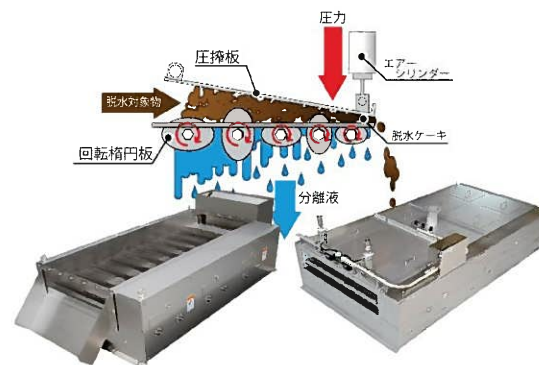
ELLIPTICAL PLATE TYPE- SOLID-LIQUID-SEPARATOR "KDS SEPARATOR"



Company	KENDENSHA Co., Ltd.	TEL	+81-853-28-1818
Address	1372-15 Nagahama-cho, Izumo-shi, Shimane, Japan	URL	http://www.kendensha.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

- No need of Backwashing : Solid-liquid separation and self-cleaning are done at the same time by rotation of the oval plates put at continuously places between slits..
- Stable process capability: No need of proses reduction for screen cleaning.
- Large transport capacity: Automatic transportation of separated solid by rotating the elliptical plate module.
- Maintenance: Easy for maintain with simple structure



Thickening Model

Dewatering Model

DETAILED INFORMATION

SS-2.56: Sludge treatment amount 20kg-dS/h

External dimension W359-L636-H174, Weight: about 45kg

SS-1212:sludge through 310kg-dS/h, external dimensions W1560-L1450-H465, weight: about 600kg

LIFE CYCLE: Operation time 8h x 20days x 12month x 3 years=5,760 h

BCS (BIO-CATALYTIC OXIDATION METHOD)



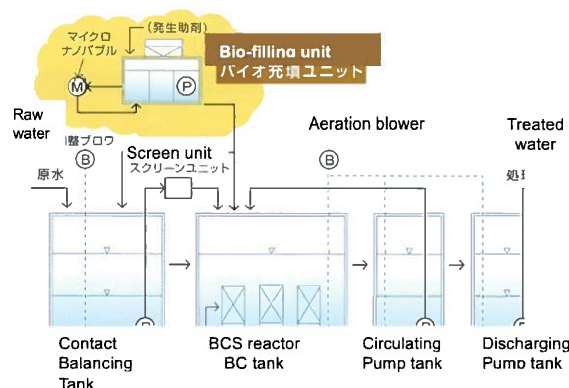
Company	DK AQUA Corporation	TEL	+81-3-6277-7620
Address	2-2-12 NBF Akasaka Sannoh Square, Akasaka, Minato-ku, Tokyo, JP	URL	http://www.daiichikankyo-aqua.com

PRODUCTS OVERVIEW

1. Tank capacity compact design (2/3 or less), reduce installation cost
2. Nearly no odor during treatment process. No need of large scale deodorizing equipment
3. Not rely on activated sludge, not require any disposal of excess sludge. Minimize maintenance cost.
4. Operation and maintenance cost may be 1/2 or less, by simple treatment process.
5. It is also possible to install an additional facility to enable recycle of treatment process.

DETAILS

We propose an appropriate set of system to minimize the installation and O&M cost by assessing the nature & concentration of waste water, availability of pre-treatment equipment such as grease trap, etc. and dimensions of the facilities.



TBM TOTAL MANAGEMENT FOR KITCHEN DRAIN SYSTEM

Company	TBM. Co., Ltd.	TEL	+81-42-347-9671 (Main)
Address	5-1586 Mikajima, Tokorozawa-shi, Saitama, Japan	URL	http://kankichikun.com

OVERVIEW OF PRODUCTS/TECHNOLOGIES

The objective is to "establish a system that a shop can concentrate on operation" to shops with high risks in floating oil and clogging through optimal drainage management service such as:

- Preventing a sudden clogging accident in advance
- Mitigate staff burdens responding shortage of labor and aging society
- Give reduction of emergency costs and efficient cleaning work

KEY WORDS

SDGs, Food recycling rate,
Preventive measures in clogging,
Solution for shortage in labor
with IoT control

conventional

Vacuum
cleaning
once to twice
/month



TBM Frequently Management

vacuum cleaning once / month
+collection of fat
twice/month
+regular cleaning of pipes

Advantage 1: The first in Japan! Biomass power generation by floating oil / fat in grease trap

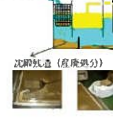


東京都内179店舗における成果 (2018年実績)

配管詰まり	58%減	緊急対応コスト	年280万円減
汚泥排出量	65%減		578t/年 → 203t/年
回収油脂量	20.5 t / 年		食品リサイクル率にカウント可能
発電量	35800kWh		回収油脂量に基づく発電量
管理コスト	7%減		油脂有価買取、緊急対応コスト減

Advantage 2: Recycle of floating oil and fat in grease trap (Increase in foods recycling rate)

TBM purchase waste oil as energy resource (1-2 JPY/L)



Waste oil is purchased for power generation

MOBILE WATER PURIFICATION DEVICE "MOBILE SIPHON TANK"

Company	NIHON GENRYO Co., Ltd.	TEL	+81-44-222-5555
Address	1-2 Higashida-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.genryo.co.jp/index.html

OVERVIEW OF PRODUCTS/TECHNOLOGIES

- That is a water purification device for producing drinking water from a wide range of water as raw water.
- No need to replace filter material with internationally patented "Siphon wash" function. It reduce maintenance and management costs
- Filtration material is kept in a clean state at all times, water quality is stable and water purification ability are maintained.
- Because it is portable, it can be moved to areas affected by disasters to support recovery.
- It functions as a "movable water purification plant" when it is equipped with a generator and peripheral equipment in a truck.



DETAILED INFORMATION

Unit type includes siphon tank, chemical injection device (coagulant, disinfectant), pre-plumbing, control panel,.

- Uses 3 phase 200V power supply
- It is not possible to process raw water or sea water containing heavy metal etc.

Lineup: 9 types 11 models from φ260 to φ2200

Throughput: 12 m3/day to 870 m3/day

The filter uses high performance filtration material. Processing is possible even with raw water turbidity of around 150 NTU.

Life Cycle: Machine equipment: 15 years, filtering material: 30 years

DOUBLE CLEAN FILTRATION SYSTEM



Company	Japan Thread Co., Ltd.	TEL	+81-3-6759-9461
Address	Konishi Bldg. 2F, 1-6-8 Atago Minato-ku, Tokyo, 105-0002, Japan	URL	http://www.reterra.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

"This unique filtration system is being developed utilizing four natural phenomena and utilizes newly-developed wound thread filters, which can withstand backwashing. This module is proficient at pretreatment and works with high flux and accuracy. The thread wound filters (nominal openings of 2.0 μm) are durable and lower the running cost. The immersion-type filtration is well-suited for treating wastewater (sewage), drain water, and ballast water."



DETAILED INFORMATION

Size of 1 module 750 mm \times 70 mm;

Size of 10 modules (1 unit) 120 mm \times 1500 mm \times 950 mm

Filtration volume (1 module) 10 m³/day (in the case of purified water);

Module + a control panel, pumps, solenoid valves, and a pressure tank are needed.

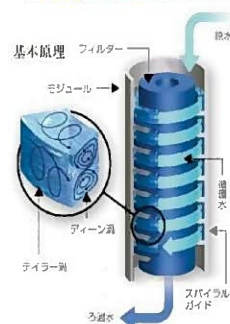
Filtration capacity: starting at 10 m³/day per module. Modules can be added, making the potential capacity limitless;

Filter micron rating: thread woven filter: 1.0 μm - 2.0 μm ;

nonwoven fabric filter: 2.0 μm or more

Durability: Module: 30 years (SUS304 models)

Filter: 5 years (fabric); 8 years (wound thread) *depending on water quality and use



Application for the Certification of Water Treatment Equipment from the Japan Water Research Center planned for 2020

BICYCLE INTEGRATED WATER PURIFIER



Company	Nippon Basic Co., Ltd.	TEL	+81-44-754-2892
Address	2-42-3-301 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Japan	URL	www.nipponbasic.ecnet.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

1. Prefilter to remove foreign substances of 1 micron or more
2. Hybrid activated carbon filter to remove pesticides and odors
3. Equipped with three kinds of microfiltration precision filtration membrane (MF) filter, pumping water from a pool or river just by stopping the bicycle and making safe drinking water with 5 to 6 liters per minute.

DETAILED INFORMATION

Size: Equivalent to adult bicycle

Weight: 47 g

Capacity: Throughput: 300 to 360 L per hour (150 to 180 persons/day)

Durability: 10 years or more (The filter needs replacement.)

Remarks: Salinity in seawater cannot be removed. Seawater desalination equipment is separately being manufactured and selling as Desaliclean



Bicycle integrated water purifier
"New cyclone clean"

ADSORBENT FOR ARSENIC REMOVAL READ-AS

Company	Nihon Kaisui Co., Ltd.	TEL	+81-3-3256-8311 (Main)
Address	Ochanomizu-NK Building-7 F, 4-2-5, Kandaugadai , Chiyoda-ku, Tokyo, Japan	URL	http://www.nihonkaisui.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Higher Performance than other products in the market
 Capable of processing regardless of number of valence of arsenic
 Recyclable by regeneration process
 Potential applicability to beverage industry
 Abundant track record of sales in Japan.

READ-As adsorbent



Simplified arsenic processing equipment



Spring water arsenic processing equipment (large scale)



DETAILED INFORMATION

Arsenic in water can be continuously removed to achieve the Japan's environmental standard at 0.01mg/L by using adsorption tower packed with the Adsorbent.
 The frequency of regeneration cycle depends on concentration and water flow rate.
 The basic adsorbent volume is proportional to water volume treated per hour divided by 10. Normally it needs replacement every 7 years.
 In operating regeneration business, a base in the field is necessary.

KEY WORDS

Wastewater treatment, applicability to beverage industry, arsenic, compact, advanced treatment

WORK BY WATER JET CONSTRUCTION



Company	Fujiks Co., Ltd.	TEL	+81-44-245-0822
Address	1-8-2 Kaizuka, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.fujiks.com/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

The nozzle and the hose clean the inside of the drain pipe from the lower floors to the upper floors. Based on the sound and what is rinsed out, the hose is inserted to clean the branched off pipes.



KEY WORDS

Upward distribution technique



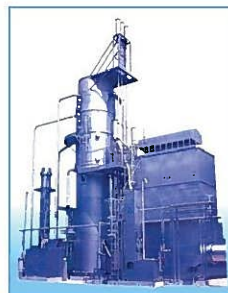


VOC EXHAUST GAS TREATMENT EQUIPMENT GASTAK, WATER TREATMENT EQUIPMENT HONEST LIMER

Company	Kureha Ecology Management Co., Ltd.	TEL	+81-246-63-1231
Address	30 Shitanda, Nishiki-machi, Iwaki City, Fukushima, Japan	URL	http://www.kurekan.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

GASTAK: a VOC / exhaust gas treatment system using reusable granular activated carbon (Kureha's unique technology) as an adsorbent. It is aimed at recovering the organic solvents and removing harmful and malodorous substances from exhaust gas. "Kureha spherical activated carbon" "G-BAC" is high-strength activated carbon with high sphericity, and it has excellent abrasion resistance and fluidity.



①GASTAK



②HONEST LIMER

HONEST LIMER: It is slaked lime automatic dissolution injection equipment for water utilities. It has been implemented in many water purification plants throughout the country and contributes not only to the prevention of rusty water but also to the prolonged life cycles of water supply equipment (water purification water distribution equipment) and pipes by preventing corrosion. Safe and delicious water can be provided by improving the Langelier Index (an indicator of water corrosiveness).

DETAILED INFORMATION

GASTAK: A lineup of products to suit needs up to a process rate of ~ 1,400 m³/min
HONEST LIMER water amount: Slaked lime injection up to ~ 500,000 m³/day.



TWO AXIS CRUSHER

Company	NIIHAMA IRON WORKS CO., LTD.	TEL	+81-562-48-2255
Address	208, Sousaku, Yokonemachi, Obu-shi, Aichi, Japan	URL	http://www.niihama.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

The power source is an electric motor and is extremely easy to operate and maintain.

- Its powerful lion drive synthesizes the output of two geared motors, making it possible to obtain large crushing power with a small motor.
- Inverter specifications: 200% crushing force can be instantaneously generated
- Crushing blade uses strong and durable special steel jointly developed with blast furnace manufacturer
- Since the crushing blade can be exchanged on site, maintenance is easy and inexpensive.

DETAILED INFORMATION

- Size of crushing chamber: 351 × 366 mm to 1090 × 1914 mm
- Motor capacity × number of devices: 3.7 kW × 1 to 110 kW × 2 units
- Blasting blade thickness: 14.8 to 90 mm



Crushing machine



Inverter

BAG BRAKING SORTING MACHINE



Company	Finetech CO.,LTD.	TEL	+81-45-309-7901
Address	Tokyo Institute of Technology Yokohama Venture Plaza, 4259 Nagatsuda-cho, Midori-ku, Yokohama-shi, Kanagawa, Japan	URL	http://finetech.co.jp/

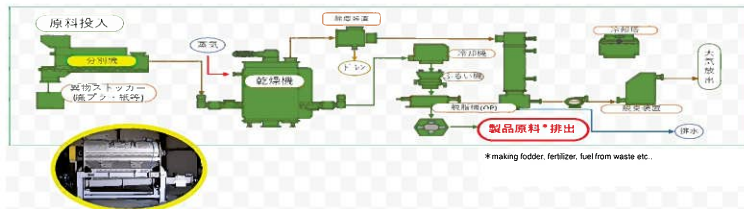
OVERVIEW OF PRODUCTS/TECHNOLOGIES

Separate waste into organic composite and others like plastic, papers, wood

- Able to separate by sorting package or garbage bags
- Able to separate containers and contents, e.g. can or plastic bottles.
- Sort metallic like knives, forks, spoons, or ceramics from waste
- Throughput: 1-10m³/h (in case of 0.6 bulk specific gravity)
- Organic compost taken out can be used for feed, fertilizer, and Methane fermentation.
- Available from small to large scale of machine

DETAILED INFORMATION

Durable, and high sorting rate of more than 99%
Compact and speedy with capacity of 500kg-6t/h



KEY WORDS: bag braking, waste sorting, resource circulation, recycling

ORGANIC FOOD VOLUME REDUCTION DEVICE "MISHIMAX"



Company	MIKUNIYA Corporation	TEL	+81-44-822-3928
Address	3-25-10 Mizoguchi, Takatsu-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.mikuniya.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

"This product reduces organic waste by up to 90% by using high temperature aerobic fermentation. It's main feature is that it activates the indigenous bacteria inside the fermenter that is filled up with wood chips, creating environmental management characteristic. In addition, because the moisture evaporates by the fermentation heat, we can achieve high reduction ratio. It is also worth mentioning that this product is environment-friendly because it does not use special bacterial cells in its operation."

DETAILED INFORMATION

MK-50 : Horizontal type (1600×2350×1440)

MK-200 : Vertical type (1800×1800×3082)

MK-1000: Cylinder type (Radius 4000× height 2000)

MK-4000: Pool type (size is custom made depending on the needs)"

The basic type (small business oriented) is 5.5 million JPY (rental is also possible)

Durability: 15 years

項目	内容	項目	内容
装置形状	横型	装置形状	縦型
処理能力	1日あたり25,100(kg)	処理能力	1日あたり100,500(kg)
装置サイズ	1600×2350×1440(mm)	装置サイズ	1800×1800×3082(mm)
消費電力	5.3(kWh)	消費電力	7.25(kWh)
			
小規模事業者用 (給食・食堂・店舗) ※生ごみ・汚泥日50kgの想定		中規模事業者用 (病院・福祉施設・水処理) ※生ごみ・汚泥日200kgの想定	
			
中～大規模事業者用 (食品事業者・水処理事業者) ※汚泥・生ごみ日1000kgの想定		大規模事業者用 (食品事業者・水処理施設等) ※汚泥・生ごみ日4000kgの想定	
項目	内容	項目	内容
装置形状	円筒型 (プール型)	装置形状	角型 (プール型)
処理能力	1日あたり500-1000(kg)	処理能力	1日あたり7000kg以上
装置サイズ	直径4m×高さ2m	装置サイズ	幅・奥行・高さ任意
消費電力	21(kWh)	消費電力	28(kWh)

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WASTE INCINERATION / POWER PLANT

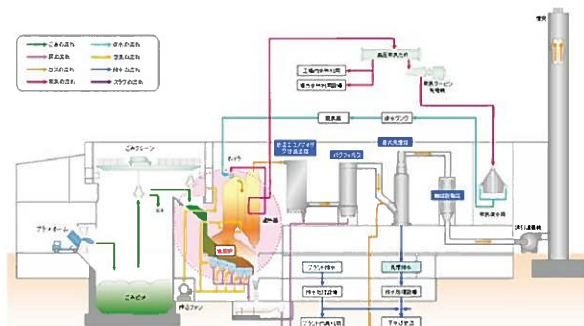


Company	Hitachi Zosen Corporation	TEL	+81-3-6404-0841 (Headquarter, Oversea Sales Department of Environment)
Address	7-89, Nankokita 1-chome, Suminoe-ku, Osaka, Japan	URL	http://www.hitachizosen.co.jp/

PRODUCT/TECHNOLOGY OVERVIEW

By incinerating waste, it enables sanitary disposal of waste and concomitant recovery of residual heat as energy source to generate power. We have offered service over 50 years to meet diverse needs of our clients.

- Hitachi Zosen Group Worldwide Over 900 track record, No.1 in the World
- World's largest (5,000 t / day) track record



Stoker-type incinerators Flow

DETAILED INFORMATION

Waste is incinerated by a combustion device referred to as fire grate, and ashes generated in the incineration process is disposed of. The heat energy generated by the incineration is recovered by a boiler as steam energy to generate electricity by a turbine / generator. The recovered energy is used as important energy in the surrounding facilities in addition to the on-site consumption.

Capacity: 50-1000 t / day

We are able to design and construct small to large-scale incinerator. 5,100 t / day at the maximum

Cost: Design, procurement, construction, commissioning instruction cost

Durability: 20 to 25 years or more

DEVELOPMENT AND SALES OF BEDDING APPLYING THEORIES IN FLUIDS DYNAMICS, PHOTOVOLTAIC POWER PLANT AND WASTE TREATMENT PLANT USING HIGH TEMPERATURE AND HIGH PRESSURE WATER



Company	Fluid Dynamics Studio, Corp.	TEL	+81-50-1346-6853
Address	F2 Floor, Keihin Building, 1-1, Minami Watarida cho, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan	URL	www.fldy.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

- Development and sales of bedding applying theories in fluids dynamics
- Development and sales of photovoltaic power plant
- Development and sales of waste treatment plant using high temperature and high pressure water

DETAILED INFORMATION

- For waste incinerator, we propose alternative plants which does not use incineration process for those having difficulty in incineration process. It also involves energy recovery.

ELECTRODELESS LAMPS



Company	GentleLighting Co., Ltd.	TEL	+81-44-811-3171
Address	1-15-30 Seki, Tama-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.g-lighting.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

The electrodeless lamps, an alternative of mercury lamp, are lighting apparatus friendly to both environment and human characterized by long-life, high efficiency, minimized pulse causing blinking, and the quality suited to medical purposes.



DETAILED INFORMATION

Capacity of the product: The life of a electrodeless lamp lasts 100 thousands hours, which save cost for replacement of apparatus. Approximately 50 to 65 % of electricity is saved as compared with mercury lamps. The lamp emits natural light with limited blinking, which minimize fatigue of the eyes.

Durability: 100 thousands hours

WOOD BIOMASS GASIFICATION POWER SYSTEM
"KUNTCHAR HGK 150"

Company	SHINODA Co., Ltd.	TEL	(Head office) +81-58-214-3495 (Tokyo branch) +81-3-6192-9175
Address	(Head Office) 2-2 Tatsutamachi, Gifu-shi, Gifu (Tokyo Branch) TK88Bldg., 1-45-3 Higashiikebukuro, Toshima-ku, Tokyo, Japan	URL	http://www.gifu-shinoda.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Small scale gasification power system using wood chips as a raw material.

The required amount of dry wood chips is 880 tons per year, which means that electricity (150 kW/h) and heat output (265 kW/h) are generated by inputting chips of 110 to 150 kg/h.

DETAILED INFORMATION

Complete system (wood chip dryer, gasifier, gas filter, cooler, gas engine, exhaust gas heat exchanger, generator)

Capabilities: Electric output 100 to 150 kWth/h
Heat output 265 kWth/h

Durability : It is necessary to replace parts as needed after the prescribed operation time, in addition to regular maintenance.



SERVICES IN BOILER, THERMAL SOURCE, AND CONSULTING



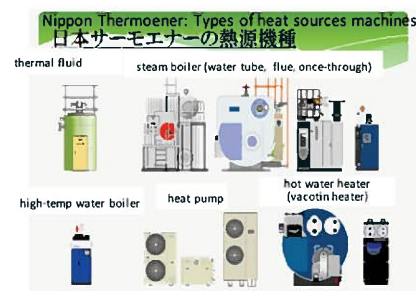
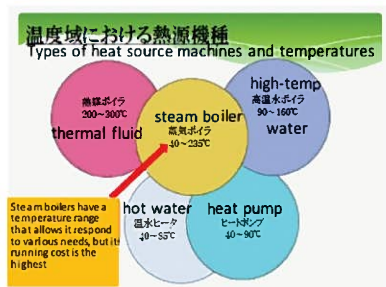
Company	NIPPON THERMOENER CO., LTD.	TEL	+81-3-6408-8251
Address	Shirokanedai Bldg., 3-2-10, Shirokanedai, Minato-ku, Tokyo, JP	URL	www.n-thermo.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Consulting support for switching to low-carbon boilers in developing countries

KEY WORDS

Boilers, high-efficiency boilers, hybrid boiler systems, woody biomass boiler



POWER REGENERATIVE BIDIRECTIONAL DC POWER SUPPLY UNIT



Company	TAKASAGO, Ltd.	TEL	+81-44-833-2431 (Main)
Address	1-24-16 Mizonoguchi, Takatsu-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.takasago-ss.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

It can be used for PV emulation, storage battery emulation and charge / discharge test of storage batteries.
It contributes to realize green factory by efficient use of the energy in factory with re-use of power implemented by our power regeneration technology, while the test such as discharging of storage batteries.

DETAILED INFORMATION

Power capacity: 10kW. It is enable to upgrade 200kW by adding additional units.
Power Efficiency: 85% or more

KEY WORDS

Power regeneration technology
and Bi-directional power control technology



Power regenerative bidirectional DC power supply unit RZ-X



SUPPLEMENTS TO NATURE "KAORI CLEAN" AND "KAORI COAT"



Company	KAORI INTERNATIONAL JAPAN CORPORATION	TEL	+81-44-222-5332(Main)
Address	5-3-521 Minato, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://kaori-international.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

"KAORI CLEAN is ""supplement to water"" for protecting and purifying the natural environment. It is applicable to all types of contaminated water featured by environmental friendliness with main components of natural minerals in addition to the fact that it is low cost.

KAORI COAT is an epoch-making ""supplement to the earth"" that is capable of containing objectionable smells and harmful substances to allow environmentally friendly approach in addition to the fact that it is low cost."

1. KAORI CLEAN (A Supplement for Water to make polluted water beautiful) Reference system and mechanism



2. KAORI COAT (A Supplement to Soil to make polluted soil reactivated) Reference features



KEY WORDS

Coagulants and Soil amendment

RECYCLED PLASTIC BOARD NF BOARD®



Company	JFE Plastic Resource Corporation	TEL	+81-44-299-5193
Address	5-1 Mizuecho, Kawasaki-ku, Kawasaki, Kanagawa. 210-0866	URL	http://www.jfe-plr.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Recycled plastic board made from used plastic household waste

DETAILED INFORMATION

Dimensions:

[NF12] Dimension: 600 mm × 1800 mm, thickness: 12 mm, weight: 9.5 kg, 100 sheets/package

[NF 5.5] Dimension: 600 mm × 1800 mm

thickness: 5.5 mm, weight: 5.0 kg, 150 sheets/pallet

[NF 4] Dimension: 600 mm × 1800 mm, thickness: 4 mm, weight: 4.0 kg, 200 sheets/pallet

Intended end-usage:

Animal husbandry → Good bacterial growth resistance, water resistance, chemical resistance, detergency

Mold form → Good corrosion resistance, easy to peel off, easy diversion, economic, environmental condition and the most suitable for embedded form.

Others → Good wear resistance, heat insulation, sound insulation, workability

Recycled Plastic Board



Use for animal husbandry



Use for frame



HIGH TRANSPARENCY THERMAL BARRIER FILM "X-3 SERIES"

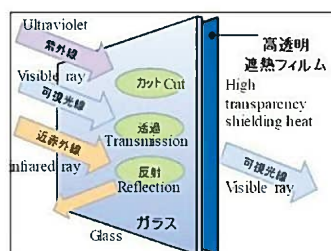


Company	SOUSHOW Co., Ltd.	TEL	+81-44-788-8521
Address	2-19-11 Hlgashinoogawa, Takatsu-Ku, Kawasaki city, Kanagawa, JP	URL	http://www.soushow.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

By affixing the film to the window glass, we can greatly reduce the feel of solar heat on the window side, improve comfort and cooling efficiency, save energy, cut peak and reduce emission of CO₂.

X-3 film structure



Photograph of installation



DETAILED INFORMATION

An Environmental Technology Verification project promoted by the Ministry of the Environment found that the air conditioning energy usage in the Tokyo metropolitan area (June - September) was reduced by approximately 24% in office buildings and 6% in residences.

The warranty period is three years from the date of installation.

PLANT ORIGIN BIOPLASTIC "UNI-PELE"



Company	UNION.CO.,LTD.	TEL	+81-44-755-1107(Main)
Address	2-3 Idasugiyama-cho, Nakahara-ku, Kawasaki City, Kanagawa, Japan	URL	http://kankichikun.com

OVERVIEW OF PRODUCTS/TECHNOLOGIES

"Material: Anti-bacteria resin integrated with bamboo powders (UNI-PELE) Organic Content 50% or more

- Antibacterial effect O-157 inhibition
- Heat resistant temperature: - 40 to 140 ° C
- Food Sanitation Law conformance
- Microwave oven OK, - Dish washer OK "

In incineration, the combustion calorie is low with minimum generation of dioxin which is a hazardous substance, reducing CO₂ by 40% or more

High antimicrobial properties by our own manufacturing process. Suppresses the growth of E. coli O-157, Staphylococcus aureus.

Since it has acquired the Food Sanitation Law, it can be applied to items handling dishes / foods. The heat resistant temperature also ranges from -40 ° C to + 140 ° C "

Unique formulation and pelletizing technology enables molding process with ordinary plastic molding machine.



KEY WORDS

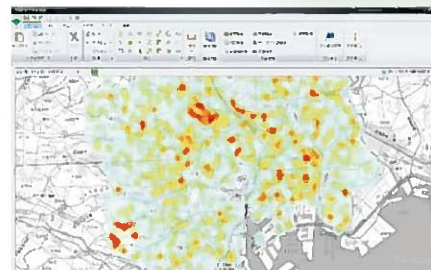
Environmentally friendly products using plant materials



Company	Informatix Incorporated	TEL	+81-44-520-0850
Address	27F Muzakawasaki central tower, 1310, Omiyacho, Saiwai-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.informatix.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

"GeoConic" and "GeoCloud" are our powerful and flexible GIS tools to support business application development which suited to diverse purpose and environment.



DETAILED INFORMATION

- **High Performance**
GeoConic/GeoCloud are equipped with a structure that allows efficient load distribution according to the application purposes. Speedy map drawing and comfortable operability are implemented.
- **Cross-Platform**
Multiple computing platforms such as Windows, Linux, Mac OS, UNIX, mobile OS, etc. are supported.
- **Corresponding to various usage**
You can use GeoConic/GeoCloud in the form of standalone, client / server, cloud service, mobile device and other types of application usage.
- **Diverse functions**
Provided with a wide range of functions including map drawing / editing, printing, search, analysis, spatial information analysis, and 3D display.
- **Flexible system development**
With abundant APIs, various functionalities such as map expression, annotation, route search etc. are available.
- **Variety of lineup**
A wide variety of product lineups is supplied from core program providing APIs to basic applications with various interface."



Company	Green Blue Corporation	TEL	+81-45-322-1011
Address	1-14-12 Nishikanagawa, Kanagawa-ku, Yokohama-shi, Kanagawa, JP	URL	https://greenblue.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

As professional for atmospheric research, we provide series of services from planning, selecting measuring instrument, application for flight permission, drone piloting, measurement, data analysis and evaluation. The data from the research are used for latest studies, especially the data of PM2.5, ozone, temperature, humidity, wind speed /direction. It is available for factories, infrastructure inspection, aerial photography.

KEY WORDS

Drone, environmental research, PM2.5, one stop service



Atmospheric research of PM2.5 etc. surrounding Fukuoka Dome



Atmospheric research from the sky above forest



Atmospheric research of PM2.5 etc. surrounding Mt. Fuji



Company	SOFTEN Co., Ltd.	TEL	+81-44-245-0975
Address	5F Kawasaki Frontier Building, 11-2, Ekimae-honcho, Kawasaki-ku, Kawasaki-shi, Kanagawa, Japan,	URL	https://www.soften.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

- Customized development of software
- Networking
- Software system sales
- Dispatch of engineers

EXAMPLE SERVICES

Sales and Install of software system about pharmaceutical management
 Sales and install of software system for children's welfare centre
 Developing / customizing camera monitoring systems
 Development, and operation support for Web applications
 Networking for buildings, factories.

"We support wide range of services, for example, developing control system /business application/Web system, networking, operating system, system integration, dispatch of IT personnel's"

OVERSEA OFFICES

Jakarta, Indonesia



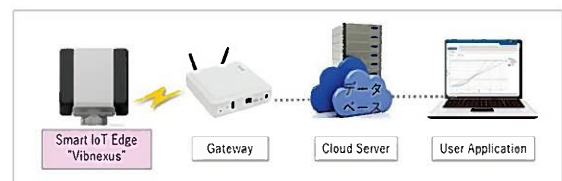
Company	Device & System Platform Development Center Co., Ltd.	TEL	+81-44-201-9030
Address	Solid Square East Tower 10F, 580 Horikawa-cho, Saiwai-ku, Kawasaki-shi, Kanagawa, Japan	URL	http://www.dsp-c.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Wireless vibration sensor module (Vibnexus) monitors the operating status of equipment that rotates (such as motors) based on vibration sensors to predict abnormalities of facilities by the change in vibration pattern. This will contribute to reducing equipment maintenance cost. We are also developing vibrational energy generating technologies (energy harvesting technology) to eliminate the need for battery replacement, simplify maintenance, and conserve energy

Motor failure predictive diagnostics

Provide total solution including collecting vibration data, Detecting abnormal values.



DETAILED INFORMATION

Vibnexus is a Wireless vibration sensor module which integrates vibration sensor, wireless module, MCU and Battery.



CATEGORY

CONSULTANT

OVERSEAS BUSINESS OPERATION AND DEVELOPMENT



Company	E-Square Inc.	TEL	+81-3-5777-6730(Main)
Address	2nd Yamauchi Bldg. 3-23-12 Nishi-shimbashi Minato-ku, Tokyo 105-0003 JAPAN	URL	http://e-squareinc.com

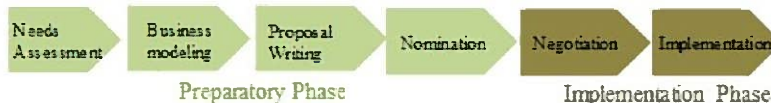
OVERVIEW OF PRODUCTS/TECHNOLOGIES

1. Proposal writing and project implementation for public funding opportunity

Assist preparation of proposal writing and implementation of activities for promotion of overseas business using the JICA's pertinent scheme. The drawing outlines the general flow of the activities of such schemes.

2. Overseas Visits and Market Survey

Leveraging the local networks in Asia and Africa and abundant experience in business development especially in sustainability aspects, E-Square Inc. assists clients in organizing overseas visits, undertaking market survey, enhancing dialogue with local stakeholders to develop new business.



3. Implementation of Feasibility Study

Assist clients in undertaking Feasibility Study and preparing F/S Report. More specifically, we offer 1) Undertaking Feasibility Study, 2) Formulating Business Model, Income Generation Model, tailored to the local social issues and challenges, 3) Preparing Feasibility Study Report.

4. Establishing BOP business and new projects.

Assist clients in establishing BOP business and new projects in emerging and developing countries.

KEY WORDS

Overseas Business Operation and Development

CATEGORY

CONSULTANT

CONSULTING SERVICE FOR OVERSEAS BUSINESS OPERATION OF FIRMS IN JAPAN



Company	Oriental Consultants Co., LTD.	TEL	+81-3(6311)7851
Address	Sumitomo Fudosan Nishi-Shinjuku Building No.6, 3-12-1 Honmachi Shibuya-ku, Tokyo, JP	URL	http://www.oriconsul.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

As a consulting firm with 62 years of experience, we provide range of services both in Japan and overseas with 10 offices in the world, including planning/research/designing, and implementation/operation/maintenance, mainly in the field of infrastructure.

KEY WORDS

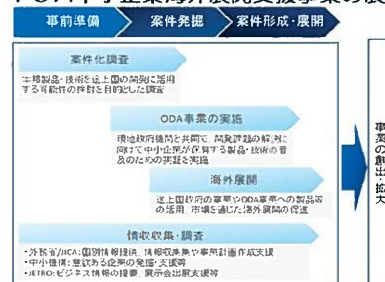
Consultants / Transport / Environment / Landscaping / Tourism / Business Management / Roads / Bridges / Tunnels / Disaster Prevention / River / Harbors / Water Supply

EXPERIENCE OF CONSULTING FOR SME'S

JICA Supporting Japanese SMEs in Overseas Business Projects from 2013 to 2019: Total 32 projects
(Needs Survey: 3, Project formulation Survey: 20, Verification Survey: 9)

Oriental Consultants(OC) support overseas business of SME's, with backup support of overseas offices of our group companies

◆ JICA 中小企業海外展開支援事業の展開例



As a consultant, OC have a range of project experiences in 150 countries with our group companies. Currently we have various projects in

CONSULTANT

COMPREHENSIVE CONSULTING SERVICE FOR DEVELOPMENT



Company	Oriental Consultants Global Co., Ltd.	TEL	+81-3-6311-7570 (Main)
Address	Tokyo Opera City Tower 9F, 20-2, Nishishinjuku 3-chome, Shinjuku-ku, Tokyo, Japan	URL	http://ww2.ocglobal.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

We provide consulting services for all project cycles for international projects including: 1) Formulation (project planning. Preparatory study), 2) planning (development master plan and implementation of F/S), 3) Designing (Basic/Detailed Design, Preparation of specification for procurement and bidding documents, preparation of operation plan etc.), 4) Implementation (bidding support, construction management, inspection/pilot operation, human resource development (education・training)) and 5) evaluation and operations maintenance.



International Airport in Kuala Lumpur in Malaysia



Underground railway



Electric bus (EV) provided to Taiping City, Malaysia: Utilizing JICA SME support scheme

DETAILED INFORMATION

OCG has engaged in over 4,500 projects in the following fields backed by 61 years of professional engineering services with funds of ODA, governments, international organizations etc. At the same time, OCG has extensive experience in overseas business operation with fund of JICA's SME scheme to promote business development of Japanese companies with excellent technologies/products that solve development issues in emerging countries/developing countries. (the latest experiences include those in Malaysia, Indonesia, Cambodia, Vietnam, Thailand, India, Myanmar etc.)

transport planning/road traffic/rail transit/Airport/Port/Agriculture and Rural Development/Water Resource/Smart City, Smart Community/Environmental Management/Water Supply and sewerage, Waste Management, Environment/Energy/Peace Building /Disaster Management /Urban and Regional Planning /Tourism Development/Architecture

KEY WORDS

- Provide comprehensive services of all sectors
- Generate value addition, identify direction and develop visions bearing in mind the unforeseeable challenges and ideals in the future.
- Involve diverse stakeholders, motivating people to realize project"

CONSULTING SERVICES FOR DESIGNING AND PLANNING IN DEVELOPING COUNTRIES



Company	Katahira & Engineers International	TEL	+81-03-6280-3500(Main)
Address	3F Ichigo Hatchobori Bldg., 1-14-1, Shitonomi, Chuo-Ku, Tokyo, Japan	URL	http://www.katahira.com/company/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

There are diverse social challenges in developing countries. The service rendered by KEI is to propose solutions, collaborate in planning process with the governments and assists them in implementation. Mobilization of Japan's private sector has been recently underlined to generate Win-Win relation between the private sectors in Japan and the public sectors in developing countries by leveraging Japan's unique technology.

KEY WORDS

Road, bridge, transport and transport policy, regional development, railway, bus high speed transportation system, airport / harbor, environment, ICT, Philippines, Vietnam, Laos, Bangladesh, East Timor, Cambodia, Sri Lanka, Kenya



Bridge construction management



Environmental measurement in developing countries



Participatory Workshop



Implementation of pilot activity

CONSULTING SERVICES FOR DESIGNING AND PLANNING IN DEVELOPING COUNTRIES



Company	CTI Engineering International Co., Ltd.	TEL	+81-3-3638-2575
Address	Tachibana Annex Building 2-25-14 Kameido, Koto-ku, Japan	URL	https://www.ctii.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Investigation, planning, design, construction supervision, project management work related to overseas infrastructure development and social environment improvement

(Water quality environmental plan, waste management plan, climate change measures, energy saving/renewable energy, environmental assessment, flood control plan, urban drainage plan, water resource management plan, sewerage improvement plan, road plan, river structure plan, road structure plan, bridge structure planning, participatory development, organizational system survey, socioeconomic survey, etc.)"

DETAILED INFORMATION

Construction Engineering International (CTII) was established as a strategic subsidiary specializing in international business by Construction Technology Research Institute (TSE 1st Section) - the first construction consultant in Japan. CTII has implemented a total of 800 projects in 100 countries worldwide, and currently has liaison offices in 4 countries. Its parent company has subsidiaries in U.K, China and Myanmar. We mainly provide consulting services in Official Development Assistance (ODA), and provide services such as proposal preparation, joint implementation and accounting processing in various projects with open bidding.



FINANCES AND OTHER SERVICES FOR INTERNATIONAL BUSINESS OPERATION



Company	Tokyo Century Corporation	TEL	+81-3-5209-7438
Address	FUJISOFT Bldg., 3 Kanda-neribeicho, Chiyoda-ku, Tokyo, Japan	URL	www.tokyocentury.co.jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

For the business in Japan, please visit our website.

DETAILED INFORMATION: Examples of Business in ASEAN Region

Countries with overseas affiliated company	Service	Key Features
The Philippines	Equipment leasing, Sales finance, Auto leasing, Deferred Payment, Trading Accounts Receivable Factoring	<ul style="list-style-type: none"> ■Sales finance: Tokyo Century Corporation operates a joint venture with Bank of the Philippine Islands, the oldest banking institution in Asia, and thus developed skills and experience in credit management. By leveraging our strength in the market, we provide financial services for those who promoting business in the Philippines.
Thailand	Equipment leasing, installment sales financing, Auto leasing, Deferred Payment, Trading Accounts Receivable Factoring	<ul style="list-style-type: none"> ■Equipment leasing: Benefit of accelerated depreciation may be exerted by setting the leasing period shorter than the depreciation period set forth in the relevant taxation law. In addition, repayment schedule may be designed according to your business plan by applying such schemes as step-up lease and lease with purchasing option.
Malaysia	Equipment leasing, installment sales financing, Auto leasing, Deferred Payment, Trading Accounts Receivable Factoring	<ul style="list-style-type: none"> ■Auto leasing: We provide auto-lease service which is accompanied by maintenance service in the areas of Kuala Lumpur and Johor. We provide secure service in automobile use with advantageous resources of reliable staff and variety of loaner cars.
Indonesia	Equipment leasing, installment sales financing, Deferred Payment, Trading Accounts Receivable Factoring, Invoice financing	<ul style="list-style-type: none"> ■Invoice Finance: We provide financial services for the transactions not suited to lease and installment arrangement including development of computer application, construction, purchase of raw materials and purchasing stocks.
Singapore	Equipment leasing, installment sales financing, Auto leasing, Deferred Payment, Trading Accounts Receivable Factoring, Loan	<ul style="list-style-type: none"> ■Auto leasing: In Singapore, the cost of vehicles is always costly due to various additional cost such as the Certificate of Entitlement (COE) and registration. By using lease service, initial cost may be saved, which would allow efficient use of financial resources. ■Loan: We provide financial services for the transactions not suited to lease and installment arrangement including development of computer application, construction, and other financial needs.



CONSULTING SERVICE ON JICA OVERSEA BUSINESS DEVELOPMENT FOR SMES

Company	Deloitte Touche Tohmatsu LLC	TEL	+81-3-6213-1251 (Main) Public Sector Advisory ODA /Infrastructure Business Strategy Team
Address	Shinagawa Intercity Building C, 2-15-3 Konan, Minato-ku, Tokyo, Japan	URL	www.deloitte.com/jp

OVERVIEW OF PRODUCTS/TECHNOLOGIES

We support the implementation of proposals for JICA overseas development support schemes for small and medium enterprises with products technologies that will contribute to the development problems of developing countries implementation of projects after adoption. In addition to smoothly implementing the JICA project by utilizing our experience with consigned projects of government agencies, we also utilize our knowledge as Deloitte professionals to provide necessary services such as examining business models for after the completion of the JICA project and compliance with regulations, establishing the procedures of local offices, and creating internal management systems.

KEY WORDS

Various services by professionals familiar with circumstances in developing countries, ODA projects, and business development

Step 1 Support with project proposals and planning	<ul style="list-style-type: none"> ■ Support creating project proposals and planning <ul style="list-style-type: none"> - Clarify the position of overseas business development project in the enterprise, support for strategy review - Coordinate domestic and overseas business activities - Provide basic information on emerging countries (policy, tax system, economic overview, legal system etc) - Develop storyline for proposal
Step 2 Support for information gathering: Surveys, Verification Surveys	<ul style="list-style-type: none"> ■ Support with implementation of project <ul style="list-style-type: none"> - Investigate about business practices, security, geographical constraints, lifestyle, resources, infrastructure, and risk analysis - Market research, product and service demand survey - local partner, support for selecting collaborators - Demonstration implementation support - Support with various types of documentation
Step 3 Support for Business Development	<ul style="list-style-type: none"> ■ Business development support after the project <ul style="list-style-type: none"> - Support for the establishment of local offices /affiliates - Labor support - Production/service, support for establishing organizations for sales expansion - Support for planning exhibition, publicity, marketing plan
Step 4 Continued Business Support	<ul style="list-style-type: none"> ■ Business continuation support in emerging and developing countries <ul style="list-style-type: none"> - Business risk management support - Support for business planning and profit structure reconfiguration - Support for formulation of reduction/expansion plan



WATER AND ENVIRONMENTAL CONSULTANT

Company	Nihon Suido Consultants Co., Ltd.	TEL	—
Address	6-22-1 Nishishinjuku, Shinjuku-ku, Tokyo, Japan (Shinjuku Square Tower)	URL	http://en.nissuicon.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

Overview of Products/Technologies

Nihon Suido Consultants Co., Ltd. provide services using high technology and plenty of know ridge in various fields of water, including upstream process to low stream process, like market research/technology research, project planning, scheduling, design, procurement, construction supervision, O&M, financial analysis etc.

DETAILED INFORMATION

We are a leading consultant in domestic water industry, control the top market share .

Since its foundation in 1959 as a consultant expertise in the water sector, we have been conducting not only water supply or sewage treatment, but also various kind of "Water" related projects in the field of environment (Waste management, recycling, global warming mitigation ,renewable energy etc..)

KEY WORDS

water environment, water supply, sewage treatment, river, water resource management, PP



Current situation survey on ground water treatment in India



Completion ceremony of waste water management facility in Malaysia



Seminar about waste water treatment in Laos

SUPPORT FOR OVERSEAS BUSINESS DEVELOPMENT (TRADE, STUDY AND CONSULTING)

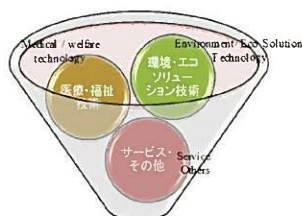


Company	Tepia Corporation Japan	TEL	+81-3-6721-5505
Address	31F Shiroyama Trust Tower, 4-3-1, Toranomon, Minato-ku, Tokyo, Japan	URL	http://www.tepia.co.jp/

OVERVIEW OF PRODUCTS/TECHNOLOGIES

1. Trading

We offer products and merchandise contributing to "Asia's prosperity" which is the philosophy of Japan Tepia. We provide total solutions from business development to trading negotiation and import/export agencies throughout Asia including China, ASEAN and Southwest Asia.



Tepia Corporation Japan
Assistance promoting the expansion of Japanese technology into the Southeast Asian (including investment)



Wastewater treatment plant in Vietnam Industrial Park

2. Consulting and Think Tank

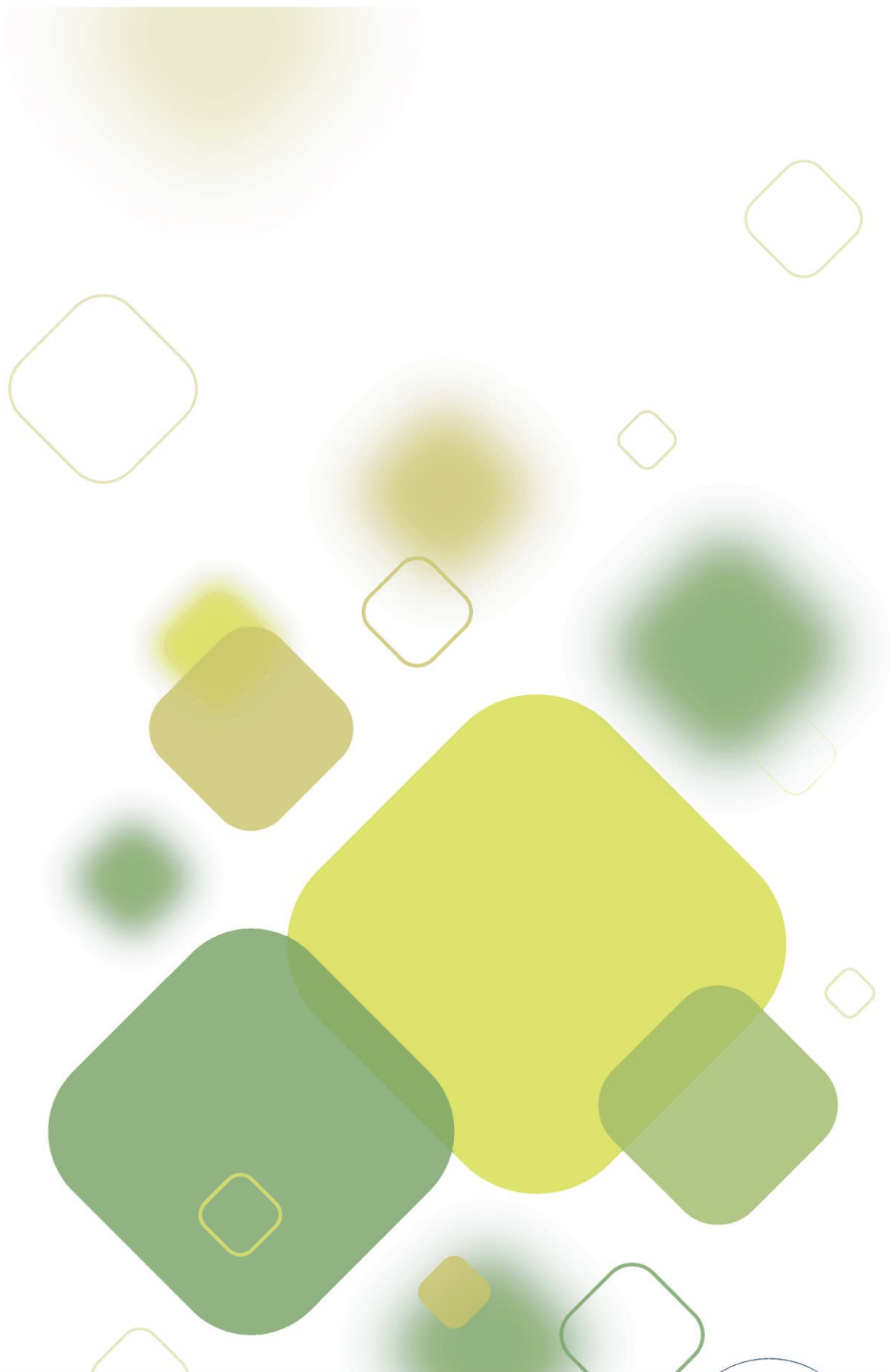
We provide services such as information collection focusing on environment, water and energy, support for business strategy planning and local office management.



A platform for industrial solar power plants imported from China and sold in Japan

KEY WORDS

Environment, energy conservation, renewable energy, water, waste, climate change, China, Vietnam, Thailand



For further information, please contact us at:



Colors, Future!
いろいろって、未来。

川崎市

**International Economic Affairs Office,
Economic and Labor Affairs Bureau
Kawasaki City**

URL: <https://www.kawasaki-gi.jp/english/>

Kawasaki Frontier Building 10th Floor,
11-2, Ekimae-honcho, Kawasaki-ku, Kawasaki City, Japan, 210-0007

Tel: +81-44-200-2335 Fax: +81-44-200-3920

Email: 28ecotech@city.kawasaki.jp

We are currently
accepting new
members!