





# **Environmental Technology Expert Group** Meetings

# Kyushu's Environmental Innovation ~ K-RIP's Environmental Business Creation **Assistance: Projects and Impact ~**



Kyushu Recycle and Environmental Industry Plaza

Fukuoka City, Hakata-ku, Hakata-eki Higashi 2 -13-24 T E L 0 9 2 - 4 7 4 - 0 0 4 2

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### 1 . K-RIP Overview ( ①K-RIP History ~ Kyushu's Environmental Potential )









#### North

◆Great need for waste management improvement given population growth

◆Raw material industry focal point ☆Raw steel production: 16.79 mn t/yr

~ 1 4 % of all of Japan

☆Cement shipment: 17 mn t/ yr

~ 2 5 % of all of Japan

 Concentration of universities and environmental technology R&D capacity Kitakyushu Ecotown

**Omuta Ecotown** 

Plastic bottle recycling facilities, home electronics recycling facilities, office appliance recycling facilities, automobile recycling facilities, fluorescent tube recycling facilities, recycled wood and plastic construction materials manufacturing facilities

RDF (Refuse-derived fuel) power plants Amusement equipment recycling Carbon fiber recycling experimentation

#### West

◆Water purification and wind power tech developed through shipbuilding know-how and geographic advantages







Successive establishing of solar panel manufacturers

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Bottle re-use/recycling facility

recycling facility

Plastic waste / composite reused resin

#### South

◆Livestock waste matter: 2 2 mn t / yr

25% of Japan From South 70%

◆Distillery residue: 6 00,000 t/yr

90% of Japan From South 80%



Miyazaki Prefecture: Power derived from chicken droppings

2



### . K-RIP Overview ( ②K-RIP's Founding )

Kyushu Region Environmentally Harmonized Economy-Society Research Group (Within Kyushu METI)

> For Promotion of Kyushu's Recycling Industry-Academia-Government Partnership organization necessary

Discussions about Kyushu region environmental problems

Presentation of model recycling system. understanding of Kyushu environmental industry's current context

1997 1998

1994

Kyushu Region Recycling Promotion Council (Within Kyushu METI)

Kyush Region Environmental Business Seeds/Needs Research

To build Kyushu Region's recycle-based economy-society, promoting and raising up the environmental/recycling industry are indispensable

1999

#### K-RIP Established



First year of Recycle-based Society ~ Laying the legal framework through "Basic Law of Promotion Recycling-based Society"

2001

Industrial Clusters Plan (Chosen from 19 project nationwide)

2005

Industrial cluster hub strengthening project ~ partnership with hub organizations

2006

**Industrial Clusters Phase II Planning** 

~ Strengthening and internalizing start-up capability

2007

JETRO RIT selection (Dalian, China), KICOX (Korean Industrial Complex Corp.) Environ. Industry Exchange (MOU)

2008

K-RIP's 4 divisions (Information / Exchange / Projects / Demand Generation) reorganized into 3 (Information Exchange / Business Generation / Internat'l Business)

Dalian City China (MOU), Kyushu Environmental Business Award started

2009

### **KRIP 10 Year Anniversary**

Key topics: Strengthen Asia expansion support, Develop low-carbon projects,

Strengthen support to individual businesses

through Internet and

other media

( Developing young

Eco academies

talent)



### 1 . K-RIP Overview ( ③K-RIP Organization, Budget, Business )

Founding Kyushu Region's Industry-Academia-Government lateral organization engaged in Environment/ Recycling (1) Through promoting and building up environmental businesses, make the Region into a model for a "recycling-based society" mission Through creating a new "Environment-Recycling Industry", aim to revitalize the Kyushu Region Organization K-RIP Board Members KRIP Position Organization Chair · Vice Chair **Consultants** Chair Aso Corp. Vice Chairs Asahi Kasei **Trustee Auditor** Kankyo Technos **Strategy** Governing board Kyushu Electric Power board Saibu Gas Nippon Steel **Business Generation Internat'l Business** Info. Exchange **Division Division Division** Trustees (28 individuals from industry/academia/gov't) Auditors Nishinippon City Bank **Cluster Managers** Office : 4 staff Kyushu Economic Federation staff K-RIP Members: 463 (Sept 2009) Consultants Fukuoka Prefecture Recycling Integrated Research Center Corporate (258) NPO (11) Academia (74) Kyushu METI Individuals (74) Special (43) ( \*Member fees : Corp: 50,000, NPO JPY 10,000, Acad/Ind. JPY 5,000, Special: Business Free ) **Budget (Million JPY)** 59 56 53 50 45 43 41 Member fees -36 17 17 18 17 <del>--</del>17-17 18 17 17 17 15 42 Ind. Cluster Subsidies 39 35 33 **Business content** 1999 2000 01 02 03 04 05 06 07 08 2009 Talent building 4 . Start-up 5 . Channel . Info. provision 3 . Matching 6 . International expansion • Industry-Academia-Gov't expansion support support · Market trends **Exhibition support** · Sales pitch support · Support through K-Tech. Exchange Group Seminars (Japan/global) · Event (e.g. University "seeds" and RIP projects Exchange promotion info (local/national). Consulting from · Kyushu Environ. business "needs" ). Interwith Overseas (Asia) Share member org. info. Support for obtaining design/ **Cluster Universities** 

tech, development and

start-up competitive

funding

marketing experts

· Business partner

ident-ification support

Project flow

business partnership group

(cross-industry, large -

SME)

**Environmental Clusters** 

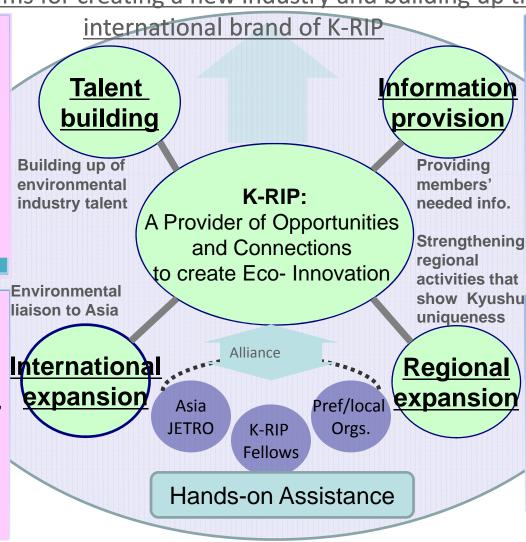
· Advice from overseas



### 1 . K-RIP Overview ( @ K-RIP's Vision )

From Kyushu, the Environment Industry's New Wind」。 K-RIP aims for creating a new industry and building up the

- Kyushu Environ. Cluster Universities lead environ. industry talent and voung environ, talent building efforts
- Building up global environment industry talent (active involvement with foreign students)
- Collaboration with external talent (K-RIP Fellows)
- Kyushu Asia Environ. Business; A "one-stop" center
- Concrete business generation support: (International Bus. Division, **Individual Project** Research Group) JETRO RIT project partnership
- Overseas exchanges, partnership building (Korea, China)



- Timely info exchange re: domestic and international regulations
- Visibility of success stories; strategic use of media
- System building for reflecting member needs in projects
- Strategic Arena (Biomass, Rare metals, Strengthening Emissions trading, Energysaving, New energy)
  - Partnership with external organizations (hubs, univ., Kyushu Econ. Federation, Kyushu NBC, Other local governments)
  - Promotion of greater Kyushu partnerships ( promoting Kyushu's full potential through agriculture, business, and manufacturing ) • Creating spaces for NPO partnerships ( Eco Academy NPO Network )



### 2 . Information Exchange - Talent Building Support – Kyushu Environ. Universities

\*Aiming to raise up Kyushu's environmental business leaders of 5-10 years later, we have started a residential training project. Besides a diverse lecture base, we are holding visits to advanced project sites and group business planning exercises. Outside of knowledge and info. Collection, we are also forming a broad human network that includes university professors.

Time: Sept 1-4, 2009

Place: Nagasaki Prefecture

From Kyushu/ Japan: 22 from industry (Business managers, junior staff, NPO staff); Students: 10; Total: 32 (9 women). Concluded amid lively discussions!

Voices from participants (from surveys)

- · Next year, please also invite younger staff participation
- By living these few days with various business leaders, thrinking through a business plan went far beyond my expectations in regards to learning, inspiration, and networking.
- · It was great to network with various environmental businesspeople from across Kyushu. In my own business going forward, I will keep in mind what I learned from the company visits.
- · Engaging in exchanges with so many players in the environmental arena was stimulating, and I gained invaluable experience certainly unavailable in a university setting.









< Conference >

< K-RIP Chair Mr. Yutaka Aso> < CO2 Emissions Reduction Business Group > Copyright (C) 2009 K-RIP All right reserved

<Mr. Kiyoshi Kurokawa, Former Cabinet Special Advisor > 6



# 2 . Information Exchange Session ~ Environmental Business Partners Networking ~

① 「Environmental Business Promotion Forum」 (24 Feb 2009; Miyako Hotel, Fukuoka) Business Exchange Group」 (10 March 2009, Miyako Hotel, F ◆Together with Kyushu Economic Federation, matched

◆By partnering with Kyushu Green Procurement Network and Fukuoka Prefecture Association for Industrial Waste, promotion of procurement of environmentally-sensitive products and services (1 1 0 participants)

large enterprise with K-RIP SME members (1 2 0 participants)





# 2 . Information Exchange Session ~ Kyushu Environ. Cluster Joint Presentation Session ~

Together with the Next Generation Energy Park opening event, Kitakyushu, Nagasaki, Minamata, Miyazaki, Amami (Kyushu Clusters and Knowledge Clusters) presented their work, and we implemented a broad partnership with the Kinki Environmental Cluster (8 0 participants)







# 2 . Business Creation ~ K-RIP Projects ~

◆We seek business projects that need up to JPY 1 million. We choose 5-6 projects annually. Besides financial support, we provide 1 year of "hands-on" support through giving expert advice.



#### **2009 Selected Projects**

Selected Companies	Proposal Topic		
Saimu Inc.	New Plastic New Detection System Overseas Expansion		
Nittetsu Environmental Engineering Inc	Development of new high-performing pollution purification material		
Natural Step Ltd.	Production of high margin strawberries that can also greatly cut CO2 levels		
Eco Factory Inc.	Radiating Air-Conditioning Unit 「Hybrid Thermal System "E c o w i n"」		
Nagasaki Institute of Applied Sciences	Organic Waste High-Temp. Rapidly Soluble Methane Fermentation Facility		

Reference ) Support for Winning Competitive Funds

◆ 「Regional Innovation R&D Project 」 「Start-Up Grants」 「New Partnership Projects 」 Helping businesses win these competitive funds from the Japanese government, we give advice on applications and presentation.

Utilization of the Regional Innovation R&D Project (and others)

Other Control of	nio ivogi	ALIMI ILLIAA	441VII I 1 V	<del>o i rojoot jana ot</del>	
	Comp-	Environ-	K - R I		
	anies	mental	K - R I P members (share)		
2001	4 3	1 1	5	【45.5%】	
02	4 2	1 1	1 0	[90.9%]	
03	3 3	9	2	【22.2%】	
04	3 5	5	3	[60.0%]	
05	2 5	5	4	[80.0%]	
06	4 0	5	4	[80.0%]	
07	2 3	3	2	【66.6%】	
2008	4 7	1 2	8	【66.6%】	
Total	288	6 1	3 8	[62.0%]	

~ The Share of Selected Companies Represented by K-RIP Member Companies ~

34 K-RIP members are among the recipients of the METI-sponsored Practical Technology Development Grants, and in the Kyushu Environmental Arena, K-RIP's share is an impressive 62%



# 2 . Business Creation ~ Kyushu Environ. Business Award (Incentive System) ~

#### 1 . Goal

For outstanding products and services that address environmental problems, K-RIP, which aims at an eco-based society, will recognize these efforts and aim to increase social awareness and open new expansion channels.

#### 2 . Program Content

#### < Award types >

『Kyushu Environmental Business Award 』 (1 product/service)、

『Kyushu Environmental Business Honorees』 (2-3 products/services )

#### <Target applicants>

Regardless of the scale of the business/project, or whether the company is a K-RIP member, the program targets products and services provided by businesses, NPOs, and other organizations or individuals with main operations in one of the 7 provinces of Kyushu.

#### 2008

- ( 1 ) Kyushu Environ Business Award : None suitable
- (2) Kyushu Environ Business Honorees: 3
- ①: Power derived from chicken dropping incineration [Miyazaki Biomass Recycling]
- ②Eco M Wood 『Reused wood-plastic composite material J [Eco Wood]
- 3 Mobile pattern removal facility onsite pattern removal project 【KM Technology 】
- ( 3 ) Kyushu Environ Business Honorable Mention Award: 2
  - ①Umbrella drying system 【Hinode】

#### 2009

- (1) Kyushu Environ Business Award: None suitable
- (2) Kyushu Environ Business Honorees: 1
- ①Coal Alkali 70 【Shitama Coal】
- ( 3 ) Kyushu Environ Business Honorable Mention: 2
- ①Water Purification Tool 「Mini Water Beetle」 【Masaki Envec1
  - 2) High amino acid foods from incineration residue
- 「Amino dark vinegar」「Sudama」【Ohyama Foods】
- ③Hybrid Eco House 【Ecoworks】



# 3 . International Business ~ K-RIP Asia Expansion Experience ~

【H 1 3 FY ~ 】 Formation of a Kyushu-Asia Exchange Platform through Kyushu METI



( From 1993, 15 yrs running)



(From 2001, for 8 years running) (From 1991, for 13 yrs running)

Kyushu-China Industrial Tech Conference



2 0 0 6 Yellow Sea Region Econ./Tech. Exchange Conference (Japan-China-Korea Trilateral Conference)

# **2006** – K-RIP's strengthening of international business expansion

FK-RIP Kyushu-Asia Environmental Business Research Group J

Main objective

1 . Contributions to Asia through Kyushu Disaster Prevention Tech. 2 . Kyushu Environmental Business - Asia Expansion

Environmental Preparation for Business Generation

2 . Individual Business Support

**Strategy** 

- Asia government collaboration through Kyushu METI
- · Business exchange MOUs with Asia's environmental orgs
- · Asia demand analysis and focal point identification
- Hands-on individual business support

# 2007-2009 K-RIP's concretizing of international business expansion

**MOUs** 

◆MOU (2007 : Korea、 2008 : Dalian, China )

Info sharing w/ Asia

◆Chinese/Korean Kyushu Industry Introduction D V D

Studies and groundwork ◆Chinese Environmental business needs / Kyushu business "seeds" study

◆Asia Environmental Business Symposium

Concrete exchange

◆JETRO RIT Project (2007-2009; Mission teams to Dalian, China)

Indiv. bus. support \*Financial support for overseas expansion through KRIP's unique brand



March 2008: Discussion with Dalian Businesses (R I T Project)



## 3. International Business ~ Industrial Exchanges with Dalian City, Liaoning Province, China ~

### . Kankyo Technos

Dalian Office ( Japan Environ. Technology Consulting ) Founded 2008.8.20



3 Employees Business content:

- 1.Inspections under RoHS
- 2.Design/construction of environmental facilities
- 3.Environ. assessment
- 4. Chemical analysis/ measurement
- 5. Environ. tech. services

· Planned joint development of low cost desulfurizer for coal boiler with Dalian Univ. of Technology

### 4 . Masaki Envec

- Signed agreement with Dalian City for warehouse storage of lightweight soil for rooftop greeting aimed at Japanese customers.
- Seeking business partners for materials processing.



### 2 . Kiyomoto Metalworks

· Head of Jinzhou District, Dalian City, visited Asahi-Kasei and Kiyomoto and decided to install its water purification technology. Currently implementing Wastewater Reuse Project Phase I, Dalian Jinzhou Econ. Development Zone New Industrial Park

### 5 . Yasukawa Electronics

· Implementing in Dalian City energy-saving projects for factory infrastructure inverters

Case example:

China Dalian City Energy-Saving Education Center / Dalian Sanyo High-Power Refrigeration System Ltd. (Sanyo Electronics) / TOTO Dalian / Dalian Hengli Industry Ltd. (Chinese company)

#### 3 . J & C Eco Solutions

· Rineng Technology ( Dalian ) Ltd., established in Dalian (2008.20.8.10)

Serving K - R I P members and others, J&C started local environmental consulting work (e.g. F/S Investigation support )

### Dalian Japan Min. of Environment **Energy Technology Park**

Chair Mr. Fumihira Takaki 2009.4

Address: Dalian City, Xigang District, Zhongshan Rd, No. 147,

Senmao Bldg. 12F



# Appendix ) Unique K-RIP Member Companies ①

Tagawa Sangyo [Fukuoka Pref. Tagawa City] World's first new material, non-fired plaster ceramics



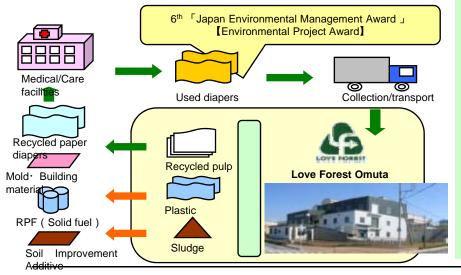
Fujishima [Oita City] Street lights using solar power using sphere optics

> 2 0 0 8 National Cross-Industry Exchange and Partnership Fair SME Bureau Director Award (Outstanding Product Award )

- R&D support through Start-up Grant
- Business Partner Matching through Eco Academy



#### Total Care System [Omuta City]



#### **Kumamoto Cleaning**

(Expansion to Nagoya at City's request)

Food recycling facility Capacity104 t processed/day Recycled Organic Fertilizer from Leftover Food "Green Supplement"







2008 Phase 2 Construction



# Appendix ) Unique K-RIP Member Companies ②

Nishimura Metalworks [Saga Pref., Ogi City] 「Industrial water processor CD dryer 」

> Chair Mr. Nishimura, Conferred in Spring 08: Order of the Rising Sun, given for contributions to environmental industry

Recommended by Economic Affairs Bureau



Originally developed as a dryer for alcohol distillation residue, then converted into a dryer for waste water processing

Sales grew to reach 7 0 % of total sales

Masaki Envec (Nagasaki City) <sup>r</sup>Water purification, rooftop greening → China

> Japan Venture Awards 2008 Entrepreneurs Division 「SME Bureau Director Award」

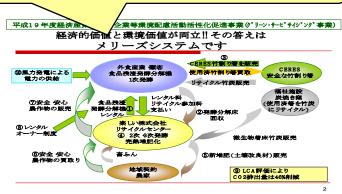




Merry Corp. [Kitakyushu City] 「Regional Cycle for Food waste ~ Merry's System」

5<sup>th</sup> 「Japan Environmental Management Award 」 Environmental Partnership Award, provided 400,000 chopsticks to staff of Tovako Summit

**Assistance** through various grants



YBM [Saga Pref., Karatsu City] Soil Improvement Manuf. Top in Japan in J → Vietnam





# http://www.





**INQUIRIES** 

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