

## **Report of Japan Green New Deal Forum 2010 !!**

The Tsunami Business Plan Presentation Meeting, which commemorated the 10th anniversary of the founding of Tsunami, and the Japan Green New Deal Forum 2010 were held at KSP Hall in Kanagawa Science Park, Kawasaki City, Japan, on April 7 (Wed.) and 8 (Thurs.). The events attracted the participation of nearly 400 people, mainly from venture firms as well as major companies and financial institutions, and was a resounding success. On the evening of the first day, there was a reception where the guests engaged in a lively exchange of views and technical as well as business information. The following is a summary report of the successful events:

### **\*Opening**

- ◆ **Opening Address** Kenji Ikemori Chairman, Venture Support Mechanism "TSUNAMI"
- ◆ **Welcome Greeting** Takao Abe Mayor, City of Kawasaki
- ◆ **Kickoff Comments** Yoshio Ichiryu Representative Director & CEO, Ichiryu Associates  
Takeo Minomiya President, TSUNAMI Network Partners
- ◆ **Speech: Societal Change--Current Prominence of Smart Grid and Energy Issues**  
Kimio Yamaka Director, The Energy Strategy Institute Institute

### **\* Technology Session: Universities**

- ◆ **Speech: Thin Silicon Solar Cells--Generating More Than Enough Energy for Cell Manufacturing Itself**  
Tadahiro Ohmi Professor Emeritus, Tohoku University
- ◆ **Speech: Partnership Among Industry, Academia and Government for Organic EL**  
Junji Kido Professor, Yamagata University
- ◆ **Speech: Business Model for Diffusion of Electric Vehicle Market** Tomoyuki Shinkai Assistant Professor, Keio University

### **\* Technology Session: University**

- ◆ **Speech: Human Wisdom for Bioethanol Production** Mitsuyoshi Ueda Professor, Kyoto University

### **\*Management of Technology (MOT) Session**

- ◆ **Speech: Management of Technology Suited For Information Age and Post-Information Age**  
Yasuo Nishiguchi Guest Professor, Doshisha University

### **\* Technology Session: Global Company Tech**

- ◆ **Speech: Panasonic's Management of Environment** Narito Shibaie Environmental Planning Group Panasonic Manager
- ◆ **Speech: Status and Future of Electric Vehicles** Haruyoshi Kumura Fellow, Nissan Motors
- ◆ **Speech: Image of Low-Carbon Society--Tokyo Electric Power's View** Naomi Hirose Managing Director, Tokyo Electric Power
- ◆ **Discussion From TSUNAMI's Mentor Company Group** Tomihiro Nakagawa Technology Advisor, TSUNAMI Network Partners

### **\* Overseas Session**

- ◆ **Speech: Saudi Arabia's Energy Policies: King Saud University's Outlook and Efforts**  
Mezyad M. Alterkawi CEO, King Saud University, Riyadh Technology Incubation Center
- ◆ **Speech: Singapore-An Innovation Lab for New City Solutions**  
Aris Toh Centre Director (Tokyo), Singapore Economic Development Board
- ◆ **Speech: Green Energy Development Strategy-Smart Integration and Collaboration**  
Hsin-Sen Chu Executive Vice President, Industrial Technology Research Institute (ITRI), Taiwan

### **\*Policy Session 1**

- ◆ **Speech: Innovation Policy: Viewpoint of Users and Local Community**  
Toshihide Yahiro Minister's Secretariat, Ministry of Economy, Trade and Industry Councillor

### **\* Policy Session 2**

- ◆ **Speech: Invest Kanagawa: The 2<sup>nd</sup> Step** Yuzo Yahiro, Industrial Group Leader Vitalization Div. Industry, Commerce, and Labor Dept. Kanagawa Prefecture

### **\* Financial Session**

- ◆ **Panel Discussion** Moderator: Journalist, Seiichi Takarabe  
Panelists: Genichi Tamatsuka Managing Partner, Revamp Corporation, Kazuto Uchida General Manager, Bank of Tokyo-Mitsubishi UFJ Economic Research Office, Tomoko Namba President, DeNA Co.,Ltd. Masatoshi Go Chairman, Japan Venture Capital Association
- ◆ **Wrap-up Speech: Strategic Viewpoint for Green New Deal** Jitsuro Terashima Chairman, Japan Research Institute
- ◆ **Closing Comments** Katsuhiko Yamashita CEO, TSUNAMI On The Road

### **\* Networking Party**

- ◆ **Greeting Address** The Hon. Shigefumi Matsuzawa, Governor, Kanagawa Prefecture  
Hiroaki Oda, Deputy Mayor of the City of Kawasaki  
Tomoyoshi Okita, President, Kanagawa Science Park

### **\* TSUNAMI Business Plan Presentation at Green New Deal Forum 2010 (Added Free Attraction)**

- ◆ **Short Individual Presentations of 13 Japanese Venture Companies With Cutting-edge Green Technologies**  
Business-Networking Time

《 Abstract of the Address by Mr. Takao Abe, Mayor of the City of Kawasaki 》

The City of Kawasaki contains many research and development facilities that have been cited by leading companies, universities, and other organizations, and which bring together first-rate researchers and engineers. In anticipation of developments such as the re-expansion of, and start of full-fledged international flight services at, Tokyo International Airport at Haneda, the city is promoting the growth of an industrial cluster in the environmental and life science fields in its Tonomachi 3-chome district. This district which lies opposite the airport and is being transformed into a hub of leading-edge research and development. We have constructed a model for assessment of products and technologies based on their contribution to reduction of CO2 emissions throughout their life cycle, from procurement of the materials for making them to their scrapping. We are applying this model for selection of items under the Low-CO2 Kawasaki pilot brand. Toward the goal of achieving a sustainable global environment, we are also working for the worldwide spread of an environmental industrial revolution born in Kawasaki through active overseas transfer of environmental technology. Kawasaki City is earnestly looking forward to the support of all here for our efforts in the environmental field and their industrialization.



《 Abstract of the Address by Mr. Narifumi Matsuzawa, Governor of Kanagawa Prefecture 》

Kanagawa is promoting local site location by R&D-oriented firms under its "Invest Kanagawa" campaign. Thus far, the campaign has attracted additional investments totaling about 600 billion yen by nearly 130 firms. We are making a shift from measures such as tax incentives for direct investment and project site selection providing further assistance for research and development. In this context, we are placing particular emphasis on support for R&D projects conducted with local small and medium enterprises. As regards measures to combat global warming, we have set in motion 13 leading projects in areas such as development of new energy, light-emitting diodes (LEDs), and electric vehicles. Attainment of the target for CO2 emission reduction set by the Japanese government will demand nothing less than the creation of new environmental technology for a 180-degree conversion of the whole socioeconomic system. Various technologies in fields such as natural new energy and storage cells are under development, and Kanagawa is also in the vanguard of approaches on this front. We fervently hope that you will help us support entrepreneurs aspiring to invest new technologies here in Kanagawa and otherwise do your utmost for stimulation of the prefectural economy.



《 Outline of panel discussion on Venture Business in Japan 》

- In Japan, venture businesses face high hurdles in all aspects, including provisions for seeking individual compensation and a general lack of respect for entrepreneurs. We must build a culture for acceptance of ventures as one of its elements. Although it is skilled at creation of improved models, Japan is still lacking when it comes to the conception required for devising new models. The situation calls for resolute action to transform Japan into a center of intellectual production by, for example, attracting creation leaders from around the world.



- To gain the capital needed for success requires a mechanism for smooth circulation of direct investment. There is an urgent need for Japan's financial institutions to acquire the capability to determine interest rates for pricing in correspondence with risks and construct a Western-style financing system that is not bound by requirements for security. - There are many areas in which Japan can cooperate with projects in the Greater China region and its periphery, which includes Taiwan, Singapore, and the Republic of Korea. Firms in possession of excellent technology ought to move swiftly for initial public offering (IPO) in foreign markets that assign high valuations to it, and set about the tasks of building networks and raising funds in them.

《 Outline of the summary address by Mr. Jitsuro Terashima, Chairman of The Japan Research Institute, Limited 》

- The current situation, which is marked by the mobilization of public finances to prop up the economy in Japan and an ultra easy-money policy, calls to mind the term "excess liquidity". It constitutes perfect conditions for another round of money-game speculation against the background of wildly fluctuating energy prices. As was also visible in the proceedings at COP 15, dialogue on energy and the environment is liable to devolve into political squabbles about the locus of responsibilities and money games in which interest is focused on making a bundle through emissions trading. We are being called upon to mount approaches to environmental and energy issues that have substance and operate through technology and projects, without being distracted by the "game" rationale.

- The equation in correlation with the Green New Deal concept is: Green New Deal = EV (electric vehicles) x RE (renewable energy) x IT. We have reached the phase of deciding the nature of the projects and business models to be devised and developed, and the assignment of roles in this work, in the layers electrical power, telecommunications, and the applications resting on them.

- We are now entering a critical juncture at which all are eagerly waiting to see how "smart city" visions and low-carbon infrastructural projects will take shape in actual infrastructures. We are moving away from the Cold War world view of apprehending things only in geopolitical terms. From now on, the correlation between networks and decentralization in small units may be expected to form the basic outlook for getting a grasp of subsequent world history. It is therefore vital to apprehend things in network terms.



\*\* These outlines were prepared by the secretariat based on the address texts.



## Tsunami Business Plan Presentation Meeting at the "Japan Green New Deal Forum 2010"

The Tsunami Business Plan Presentation Meeting in Japan Green New Deal Forum 2010 commenced in the same venue at 2:00 PM on the second day of the program. It consisted of presentations by 13 promising venture firms. The Meeting was separate from the regular monthly meetings for presentation of business plans hosted by TSUNAMI Venture Support Organization. The venue was filled with many attendees who had participated in the Forum. In spite of the short time (ten minutes) allotted to each firm, the elevator-pitch presentations by all were rich in content.

### List of participating firms (in the presentation order)

#### 1. Hyper Drive Corp. (<http://www.hyperdrive-web.com/>)

Hyper Drive is engaged in the development, manufacture, and sales of a variety of power generation products applying SRI electroactive polymer artificial muscles (EPAM), a new-age generation material. The products generate power by the movement of the object, without being limited by any particular type of natural energy such as solar and wind power. This type of generation is characterized by a wide range of application and low cost.

#### 2. Aqua Science Corp. (<http://www.aqua-sc.com/>)

Aqua Science develops, designs, and sells industrial washing equipment built around a core of leading-edge washing technology accumulated in the field of semiconductors. Its products help to alleviate burden on the global environment because they use steam and ozone water for washing instead of chemicals. It is working toward mass production and also wants to develop business in overseas markets. It is, in addition, emphasizing solar cells and LEDs in its promotional efforts.

#### 3. PI Technology Research Inc. (<http://www.pird.co.jp/>)

PI successfully developed the world's first soluble block copolyimide (an ultra heat-resistant resin). This substance can be stored at room temperature and endowed with various functions (e.g., adhesiveness, photo-sensitivity, solder tolerance, low dielectric constant, and electrodeposition). The company is engaged in the development of materials for lithium-ion batteries and conductive polyimide materials with the Kanagawa Industrial Technology Center.

#### 4. Shicoh Corp., Ltd. (<http://www.shicoh.com/>)

Shicoh develops and manufactures ultra small motors used in mobile phones. It can boast a substantial share of the world market for voice-coil linear motors developed to drive auto-focus lenses for the small cameras installed in mobile phones. It is also involved in the development of generators for small wind turbines and hydropower generator systems based on coreless motors, and plans to build its business on a worldwide scale.

#### 5. EAMEX Corp., Ltd. (<http://www.eamex.co.jp/>)

Eamex is in possession of two types of material technology: ion-conductive actuators and conductive polymer actuators. It is involved in the whole process from basic research to product development, and hopes to become the first in the world to achieve polymer actuator technology capable of practical utilization. Its wide-ranging activities extend to research and development of sensor and capacitor technology and applied development of products (including camera lens drive devices for mobile phones, devices for medical surgery, and artificial muscles).

#### 6. AJI Corp., Ltd. (<http://www.ajisso.com/>)

AJI's market consists of the areas of component processing, mounting processes, and inspection in the mounting field. Its business is supported by two pillars: mounting equipment for the fabrication and processing of other items, and manufacturing know-how plus patent licensing materials related to manufacture of optical components on the wafer level. Its technology is utilized in connection with lenses for mobile phone cameras and LEDs.

#### 7. Refinverse Corp., Ltd. (<http://www.r-inverse.com/>)

Refinverse has established technology for separation and recovery of materials (e.g., vinyl chloride and nylon) from scrapped tile carpets, and provides regenerated resin materials for production of carpets and other products. It has built a completely cyclical recycling system to turn materials from vinyl chloride scrap back into resources, which it then supplies to customers. It plans to expand its business into the Nagoya and Osaka areas.

#### 8. Epicrew Corp. (<http://www.epicrew.com/>)

After locating in the city of Omura, Nagasaki Prefecture in 2003, Epicrew embarked on the manufacture of semiconductor fabrication equipment and related research there. It provides products and technical support with a market position focused mainly on the epitaxial process. It has strength not only in sales of used as well as new equipment but also in process development. For the latter purpose, it has process-use demo units.

#### 9. Aquafairy Corp., Ltd. (<http://www.aquafairy.co.jp/>)

Aquafairy has developed a power generation unit that delivers a high output in spite of its slim profile, and hydrogen-producing technology for production of the element only at the requisite time and in the requisite quantity. It has also succeeded in mass-producing a hydrogen-producing agent that is both compact and highly safe.

#### 10. Tsukuba Seiko Corp. (<http://www.tsukubaseiko.co.jp/>)

Tsukuba Seiko is engaged in the design and development of electrostatic chuck systems to resolve problems of adsorption with wafers, substrates, all types of film, and insulators. It is currently making a belt-form chuck with a view to developing a pay-out electrostatic adsorption process operated by stretching the belt across two rollers

#### 11. Pro-Material Corp. (<http://www.pro-m.co.jp/>)

Promaterial develops and manufactures Stirling engines, which are termed "external combustion engines" because they operate with heat applied from the outside. Unlike the internal combustion variety, they can run on various types of fuel and heat sources. Because the combustion is not accompanied by explosions, the engines run quietly and produce only low levels of nitrous oxides and other emissions.

#### 12. W-SCOPE Corp. (<http://www.w-scope.com/>)

W-Scope uses its polymer film technology to develop and manufacture platinum catalysts for fuel cells, polarizing film for flat panel displays, high-performance film for industrial use, and filter film for both industrial and medical use. It has a large plant in the Republic of Korea. At present, it is emphasizing manufacture of separator film mainly for lithium-ion batteries. Its market is anticipated to continue expanding on a global scale.

#### 13. Solar Silicon Technology Corp.

(<http://www.ss-t.jp/>)

Solar Silicon Technology Corporation develops, manufactures, and sells silicon materials for solar cells. It is developing a solar cell business with a supply ranging from cells and modules to entire systems. It has a plant producing building-integrated photovoltaic (BIPV) modules in the Kansai region, and is promoting the spread of PV power generation.

**【comment】** On this occasion as well, the Meeting drew a large number of people from various circles. It was gratifying to hear from many of them how pleased they were with such a full international program. We would like to take this opportunity to express our deep gratitude for the cooperation and participation by all concerned in making the Forum and Business Plan Presentations a success.

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