

U.S.-Japan Clean Tech Symposium 2010

Why Being in Japan and Partnering with Japanese Companies are Essential for Clean Tech



Join us for our U.S.-Japan Symposium. This event will highlight clean tech opportunities and encourage collaboration between U.S. and Japanese companies through discussion and sharing of strategies and plans (e.g. investment in U.S. and Japan; innovation opportunities for U.S. and Japanese companies; entry into third-country markets by U.S. and Japan collaboration).

Organizers

- U.S. Department of State
- METI (Japan's Ministry of Economy Trade and Industry)
- JETRO (Japan External Trade Organization)

Agenda

Panel Discussion 1: Japan Session

Current developments in marketable clean technologies in Japan and what Japanese companies are looking for when working with U.S. companies.

Moderator: Daniel Okimoto, Professor Emeritus, Stanford University

Speakers:

- Yasuyo Yamazaki, President, Sun-Based Economy Association
- Tsuyoshi Hoshina, Chief Technology Officer, Nihon Unisys
- Peter M. Fannon, VP of Corporate & Government Affairs, Panasonic Corp. of North America
- Masazumi Ishii, Managing Director, AZCA, Inc.

What's Now in Japan Clean Tech

U.S. journalists will discuss the latest technologies and trends in Japan

Speakers:

- Michael Kanellos, Editor in Chief, Greentech Media
- Rob Schmitz, Los Angeles Bureau Chief, KQED
- Phil Keys, US Correspondent, Nikkei Electronics

Panel Discussion 2: U.S. Companies Session

Views on the Japanese market and overseas market development by U.S. clean tech companies

Moderator: Michael Kanellos, Editor in Chief, Greentech Media

Speakers:

- Vijay Parmar, Chief Executive Officer, GainSpan
- Diarmuid O'Connell, Vice President of Business Development, Tesla Motors
- Jeff Smidt, VP & General Manager of Global Energy Business, Underwriters Laboratories (UL)

(Networking Reception will be held after the Symposium)

Date and Time:

Thurs., February. 18, 2010

Registration: 1:00pm

Event: 1:30pm - 5:30pm

Location:

Hotel Nikko San Francisco
222 Mason Street
San Francisco, CA 94102

Registration:

To register and for more information, visit

www.jetro.org/symp2010.

Partnering with Japanese Companies in Clean Tech

U.S.-Japan Clean Tech Symposium 2010

U.S. Department of State • METI • JETRO

Hotel Nikko San Francisco

February 18, 2010

Masa Ishii (石井正純)

Managing Director - AZCA, Inc.

Managing Director - Noventi

Visiting Professor - Shizuoka University

Roadmap for 25% Reduction of CO₂ Emission

	2020 (Million ton)	Vs. 1990 %	Vs. 2005 %
Industry	366 - 399	(17 - 24)	(12 - 19)
Home	88 - 104	(18 - 30)	(40 - 49)
Office, stores	130 - 156	(4 - 20)	(34 - 45)
Transportation	162 - 186	(14 - 25)	(27 - 36)
Domestic Total	946 - 1068	(15 - 25)	(21 - 30)

Specific Actions

Home

- Promotion of PV - More than 10 Million homes
- Installation of high efficiency boilers - 80%+ penetration
- High insulation - Highest level standard for new construction; improvement of existing buildings
- Energy saving consumer electronics
 - Aircon efficiency 33 - 37%+ improvement
 - Lighting efficiency - 40%+ improvement

Industry Office Commercial

- Solar PV - Install 43GW in industrial sectors
- Next generation coke oven - 50%+ penetration

Transportation

- Next generation vehicles:
 - HEV: 60 - 80% penetration
 - EV: 5 - 15% penetration
- Gas mileage of conventional vehicles (passenger cars and trucks, etc.) - 20 - 40 % improvement

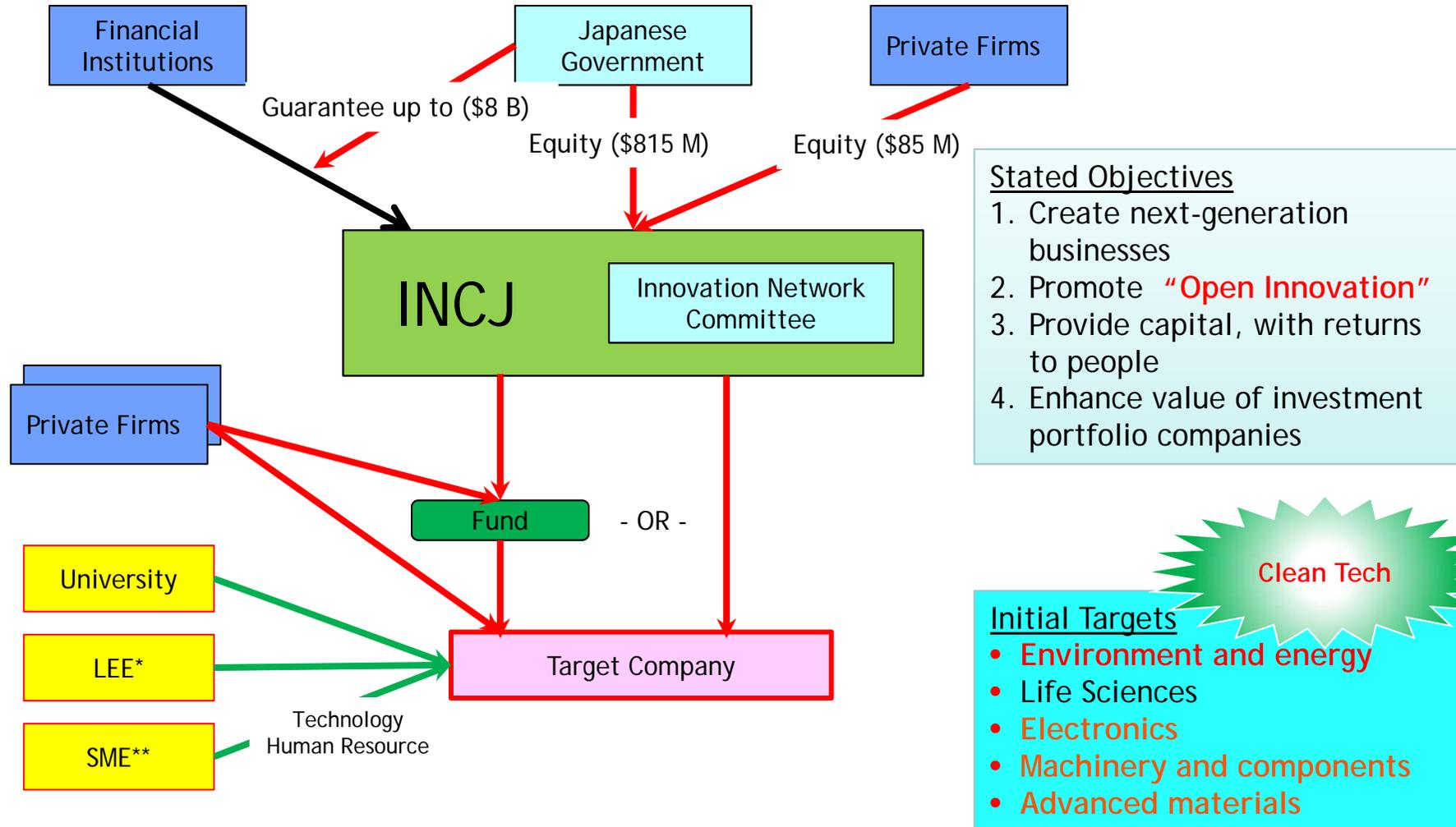
Other means

- Purchase of Carbon Credit from foreign countries
- Absorption by forest trees

Government Push for Clean Tech

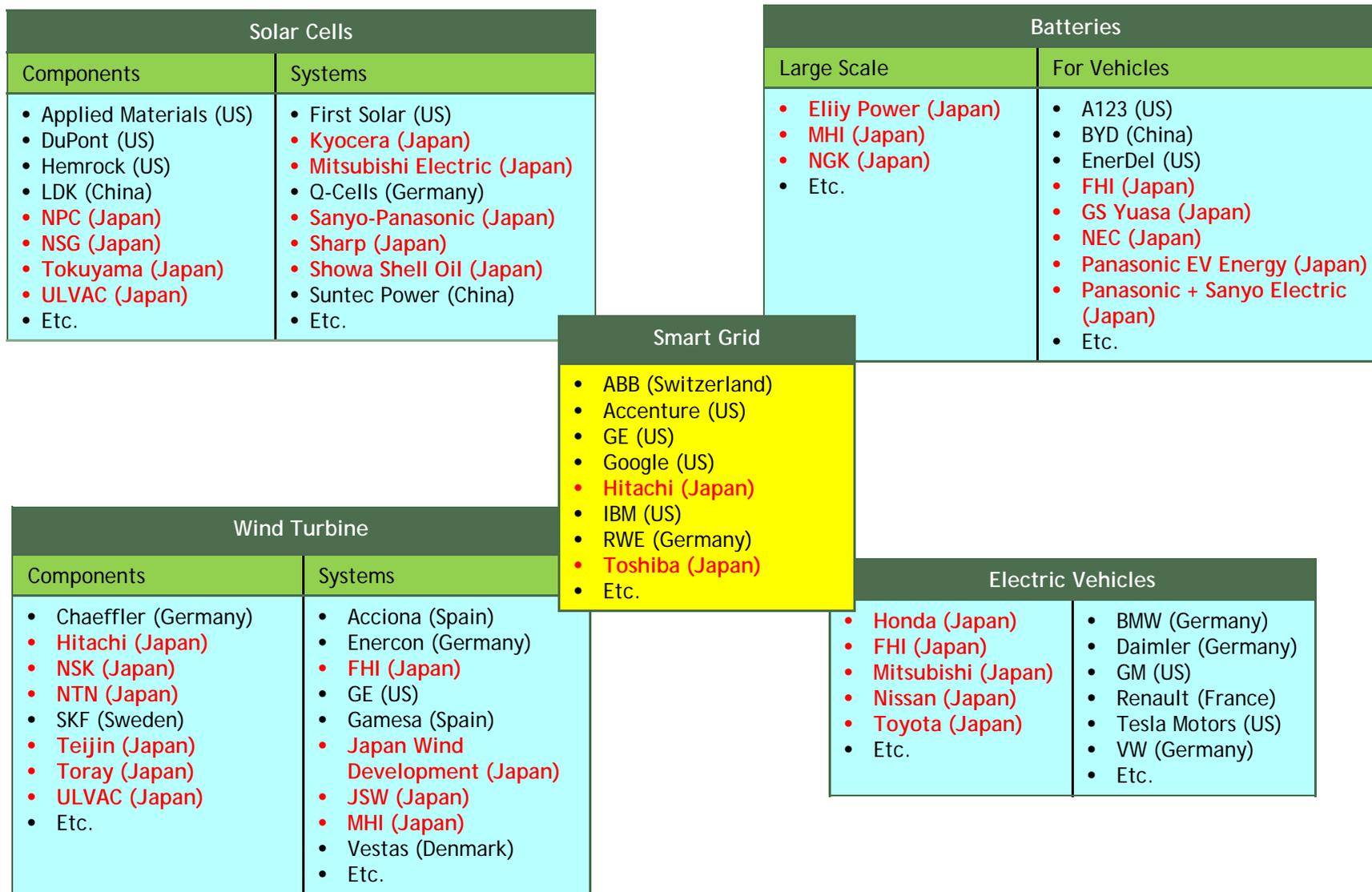
- Government Budget for R&D Programs - \$4,119 Million (2010)
 - ◆ METI (Ministry of Economy, Trade and Industry) - \$3,174 Million
 - ◆ MEXT (Ministry of Education, Culture, Sports, Science and Technology) - \$530 Million
 - ◆ MLIT (Ministry of Land, Infrastructure, Transport and Tourism) - \$365 Million
 - ◆ MOE (Ministry of the Environment) - \$50 Million
- Incentives for Users and Industries
 - ◆ Install solar for 200,000 homes - \$470 Million
 - ◆ “School New Deal Plan” (MEXT): Install solar at 12,000 public schools - \$2,800 Million; 50% subsidy
 - ◆ etc.
- DPJ “Manifesto”
 - ◆ From “net” FIT (Feed- in-Tariff) to “gross” FIT
 - ◆ Expand to other renewables
 - ◆ etc.

Innovation Network Corporation of Japan (INCJ)



Note: Used \$1.00 = ¥100; *- Large, established enterprise; **- Small and medium enterprises
 Source: INCJ

Major Players in Renewable Energy



Source: Nikkei Business; AZCA

Case Study - Ballard Power Systems



Automotive
(early alliances)

BALLARD

- 1973: Established by Dr. Geoffrey Ballard as Ballard Research Inc.
- 1983: Development and demo of PEMFC
- 1989 - 1994: Develop and improve prototype
- 2001: Commercialize Nexa Power module
- 2007: Ballard pulled out of the hydrogen vehicle sector; sold its automotive fuel cell assets to Daimler AG and Ford Motor Company
- Today: Leader of Zero emission PEMFC, focusing on stationary electrical generation

Stationary
co-generation system



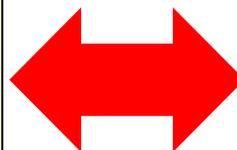
- 1998: Ebara-Ballard, a joint venture company established in Japan
- 1999: Field test of PEMFC co-gen systems with NTT
- 2005: Commercialize and sell co-gen systems for residential use from Tokyo Gas ("ENE FARM"); Receives Government subsidy
- 2005: Ebara-Ballard receives rights to manufacture stacks in Japan
- 2009: Dissolve JV



Case Study - Konarka



- Established in Lowell, MA in 2001. o- founders include the Nobel laureate Alan J. Heeger.
- Investors include: 3i, Chevron, DFJ, Massachusetts Green Energy Fund, NEA, etc.
- Developing polymer-fullerene solar cells and dye-sensitized solar cells (DSSCs).

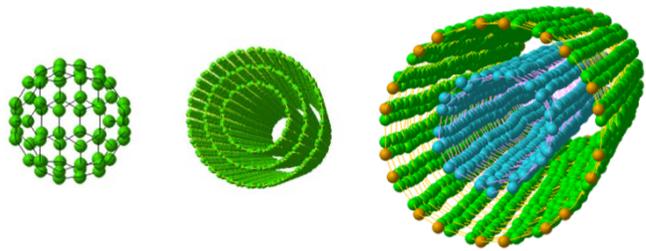


TOPPAN FORMS

- Subsidiary of Toppan Printing.
- Business domain: Business forms, Data print service, RFID, Smart card and related e-Business, Forms processor, office supplies, etc.
- In 2007, agreement with Konarka to accelerate the Commercialization of Organic Photovoltaic Product Applications.
- Toppan Forms plans to sell Film type solar cells for mobile devices (A4 -size PV - full charge in 2 hours)



Discussion





Masa Ishii

Masazumi (“Masa”) Ishii is founder and Managing Director of AZCA, Inc., a professional services firm based in Menlo Park, California, specializing in US - Japan corporate development for high technology companies. He has over 25 years of experience as a professional in international business and high technology. Masa is also a Managing Director of Noventi, a venture capital firm specialized in cleantech, based in Menlo Park, California. He has been an active venture investor in emerging technology companies during the past 15 years. Formerly, Masa worked at McKinsey & Company, Inc. as a senior management consultant and at IBM as a systems engineer.

Masa serves on the board and the advisory board of several multinational companies. He is a frequent speaker and writer on issues involving international business development in the high technology industry. He is also a visiting professor at Shizuoka University in Japan and Senior Executive Advisor to PARC (Palo Alto Research Center). He is a long time board member of both the Japanese Chamber of Commerce of Northern California (President in 2007) and the Japan Society of Northern California.

Masa holds a Bachelor of Engineering in mathematical engineering and instrumentation physics from the University of Tokyo and a Master of Science in computer science from Stanford University.