

WIPO GREEN: Contribution from Japan Intellectual Property Association (JIPA)

30th May 2012

Topic 4: WIPO Green: A Mechanism for Accessing ESTs
WIPO Regional Forum, Colombo, Sri Lanka

Yorimasa Suwa, PhD, MBA
Japan Intellectual Property Association

Agenda

- Introduction of Japan Intellectual Property Association (JIPA)
- Concept of Green Technology Packaging Platform (GTPP) Project in JIPA
- Cooperation of JIPA and WIPO in WIPO GREEN: Current Status
- Ultra Light-weight Vehicle (ULV) :
Green Technology in the WIPO GREEN Database from Waseda Environmental Institute (WEI) in Japan
- WIPO GREEN: Current Issue

Japan Intellectual Property Association (JIPA)

- Established in 1938 and has a history of 74 years.
- Non-profit, non-governmental and largest IPR Industry Organization in the World.



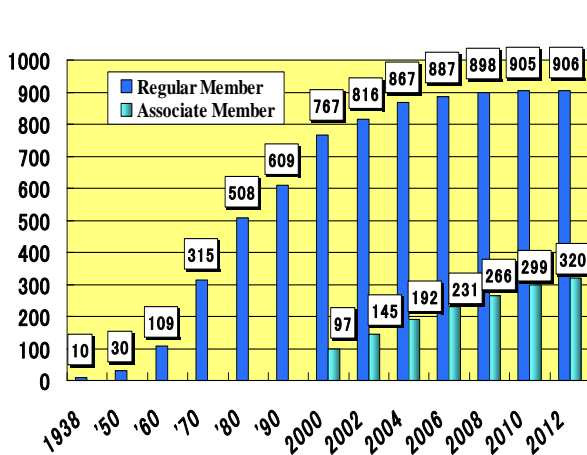
■ Objectives

- The Association aims at contributing to the business of its Members by endeavoring to make full utilization of intellectual property systems and to improve them.
- It also aims at contributing thereby to the sound progress of technology and development of Japanese industry.

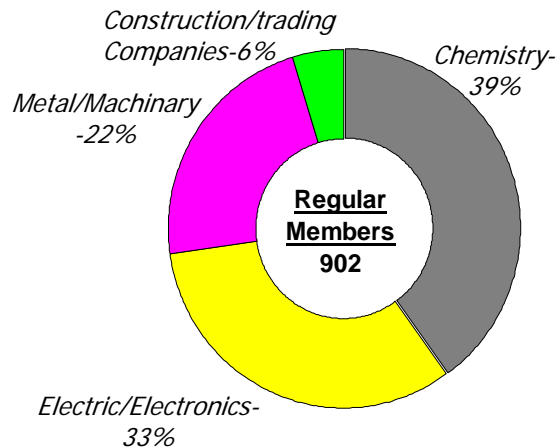
- URL; <http://www.jipa.or.jp/english/index.html>

Japan Intellectual Property Association (JIPA)

■ Transition of Memberships



■ Analysis of Regular Member Companies (As of May.22,2012)



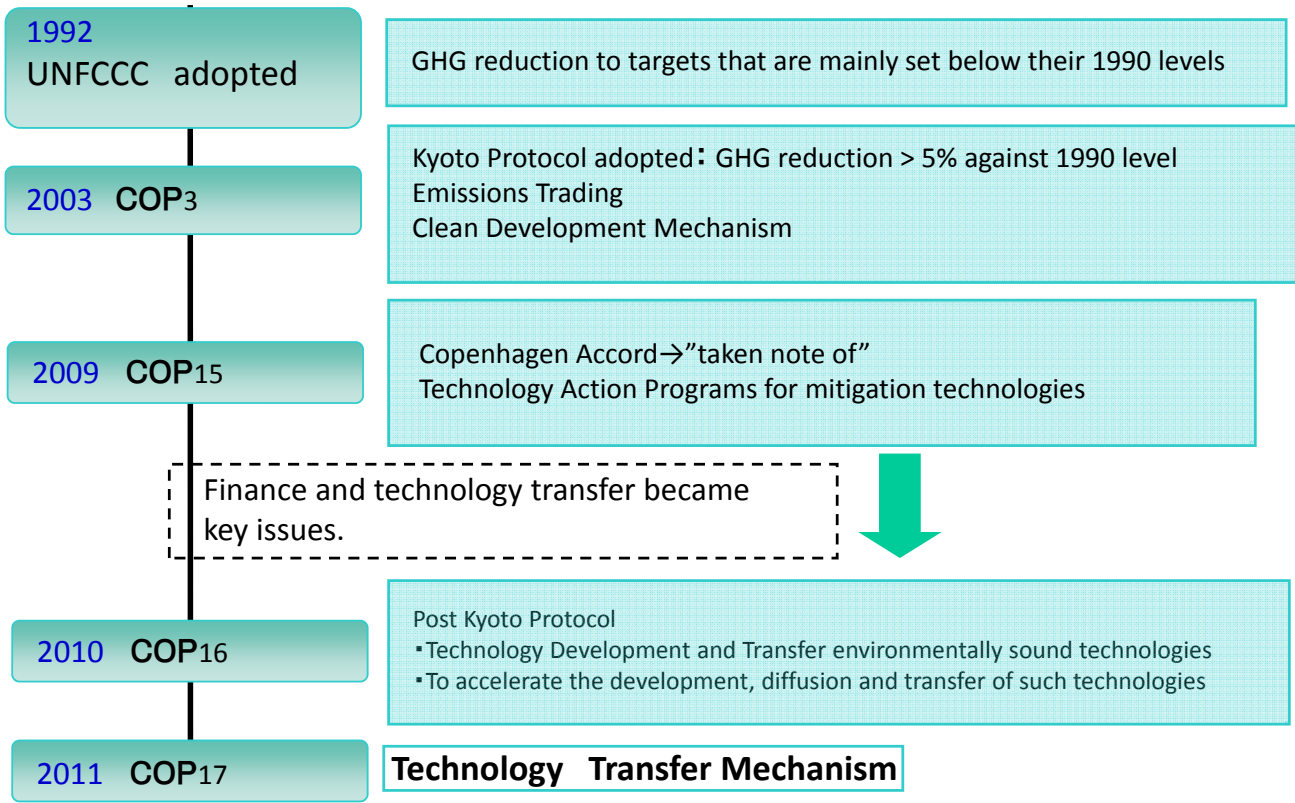
Policy on JIPA Activity in F/Y 2012

1. Promotion of **Global Activities**
2. Activation of JIPA Internal Activities
3. Training of IP Human Resources
4. Rebuilding of JIPA Management Infrastructure
 - (1) Cooperation to **WIPO-Green**
 - (2) Promotion of Activity for Harmonization of Patent Systems in the World
 - (3) Promotion to Corporate Cooperation between Japan & China & to Eradicate Counterfeiting and Piracy
 - (4) Collaboration with Outsider of PJs on Employees' Invention System & on Relationship between Business and Standardization Strategy
 - (5) Acceleration to provide Members with IP Information of Developing Countries
 - (6) Activation of Local Activities
 - (7) Transmitting and Exchanging Information
 - (8) Training Global IP Human Resources
 - (9) Rebuilt of JIPA Financial Infrastructure
 - (10) Reevaluation of Quality of JIPA Training System
 - (11) Effective Management of Meetings using IT System
 - (12) Reinforcement of JIPA Secretariat Function

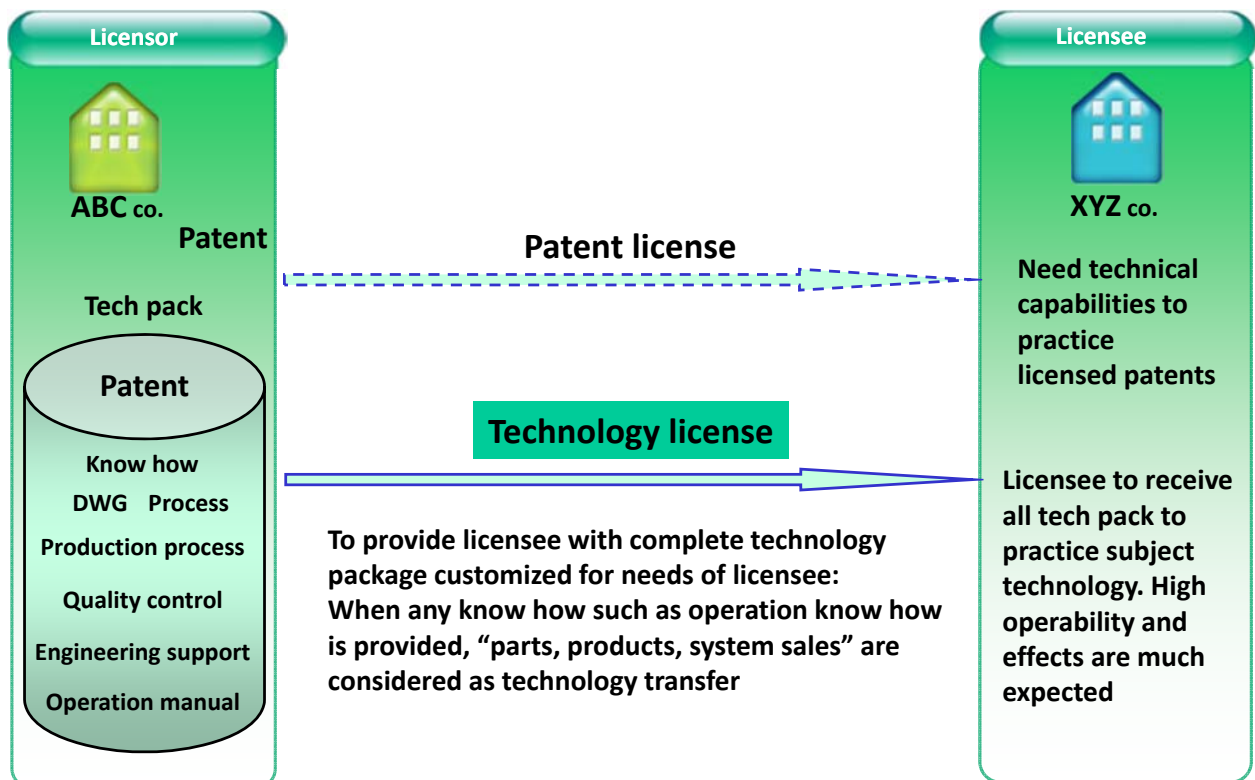
Agenda

- Introduction of Japan Intellectual Property Association (JIPA)
- Concept of Green Technology Packaging Platform (GTPP) Project in JIPA
- Cooperation of JIPA and WIPO in WIPO GREEN: Current Status
- Ultra Light-weight Vehicle (ULV) :
Green Technology in the WIPO GREEN Database from Waseda Environmental Institute (WEI) in Japan
- WIPO GREEN: Current Issue

Discussions in COP



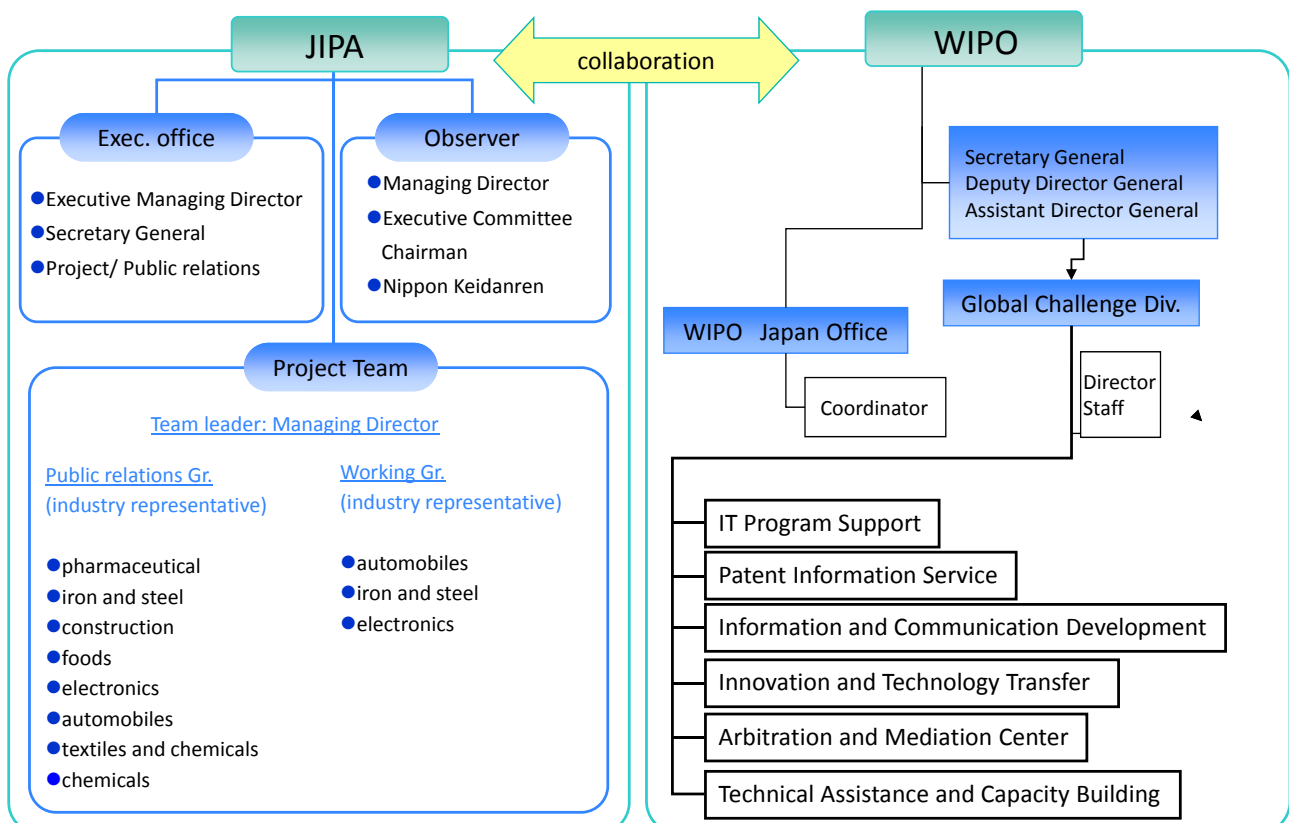
Technology Packaging for Transfer



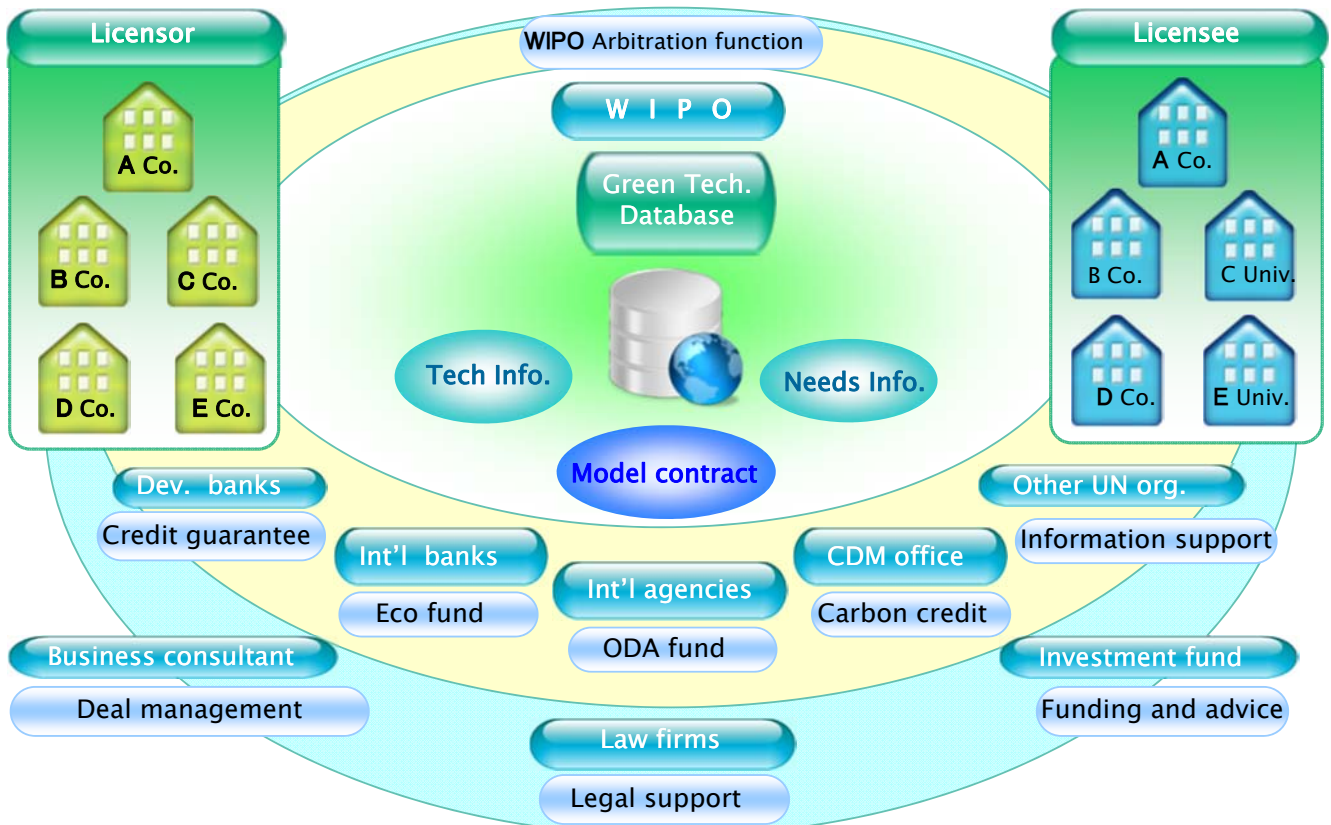
Agenda

- Introduction of Japan Intellectual Property Association (JIPA)
- Concept of Green Technology Packaging Platform (GTPP) Project in JIPA
- Cooperation of JIPA and WIPO in WIPO GREEN: Current Status
- Ultra Light-weight Vehicle (ULV) :
Green Technology in the WIPO GREEN Database from Waseda Environmental Institute (WEI) in Japan
- WIPO GREEN: Current Issue

JIPA & WIPO Joint Team



Comprehensive Image of WIPO GREEN



WIPO GREEN
The Sustainable Technology Marketplace

WORLD INTELLECTUAL PROPERTY ORGANIZATION

WIPO GREEN (PILOT)
Charter
Background
User Services
Partners
FAQs

E-NEWSLETTER
Subscribe to receive updates on WIPO GREEN

WIPO GREEN - The Sustainable Technology Marketplace (Pilot Version)

Environmental technologies can significantly contribute to worldwide efforts towards achieving a low-carbon economy. WIPO GREEN facilitates the accelerated adaptation, adoption and deployment of these technologies, particularly in developing countries and emerging economies.

WIPO GREEN:

- Serves as a hub connecting various critical partners, with WIPO facilitating policy dialogue and networking;
- Enables owners of proprietary technologies to make selected technologies and solutions available as packages, including know-how, services and materials;
- Facilitates the matching of specific, user-formulated needs with technology providers;
- Provides additional services, including training, consulting, dispute resolution and financial support.

Recently Added Resources

Technology | Need

Hybrid Lagoon System (HLS) (Feb 19, 2012)
[Abstract]: HLS is a wastewater treatment technology featuring unique architecture of plants, way of treatment and functions of microorganisms, comparing with competitive Continuous Wastewater Treatment Technology with Activated Sludge (CWTTAS). [Architecture]: Single inverted-constrapezoid ...

PINEAPPLE PLASTIC (Dec 23, 2011)
Innovative, unique process of utilising waste from pineapple canning industry to create a degradable plastic composite. Help to overcome the lump of non-degradable plastic that cannot be degraded to make usage of the abundant pineapple waste.

PINEAPPLE PAPER (Dec 23, 2011)
An innovative, unique process of utilising waste from pineapple leaf fibre to produce paper based products. Utilising raw materials from readily available abundant pineapple and other organic waste which is not only cost effective, but also environmental friendly and exhibit superior properties com ...

Lead (Pb)-free solder (Dec 13, 2011)
The Pb-free solder which Fujitsu developed consists of "stannum, zinc and aluminium" and has following features. (1)low melting point: This solder succeeded in realizing melting point of 199°C similar to melting point of solder consisting of "stannum and lead" such as 183°C although conventional sol ...

Method of Paper fastening and Document Preparation Device (Dec 01, 2011)
This technology is to fasten papers without using staples, and is based on the principle that the fibers in damp paper would be intertwined by pressurizing. To cause this result, this technology also includes the step of dampening the papers.

ULV Ultra Lightweight Vehicle, Ultra Lightweight Small Mobility (Nov 30, 2011)
The expectation for next-generation mobility is growing in the measure about low carbonation and the smart community of a transportation section. The super-light weight small mobility ULV which made it the concept to be under an automobile more than a bicycle is developed. The number is acquired ...

HEMS, Co-benefit type environmental consideration action support system and program (Nov 30, 2011)
Energy management efficient for energy saving and the formation of reducing CO2 emission in a public welfare section (a home and business) is demanded. It is the eco-friendly action support system and program which perceived men's (a tenant, employee, etc.) life style and work style unlike former t ...

Biological oil production from unused woody biomass and utilization networks (Nov 30, 2011)
The concern about the effective use of the unused wood biomass from energy security or a perspective of CO2 reduction is increasing. The knowledge corresponding to the multi-energy supply which paired the biological oil manufacture technology from the woody biomass by rapid thermal cracking, gasifi ...

Home appliance recycling technologies (Nov 11, 2011)
Hitachi Group harnesses its accumulated experience and achievements to offer diverse support for the introduction of home appliance recycling technologies: including the development of a business model, consultancy on business development, technology transfer, patent licensing, and introductions to ...

MSABP - Multi-Stage Activated Biological Process Treatment System (Oct 30, 2011)
The MSABP(TM) is water purification technology based on a revolutionary biological treatment process in which a special biological carrier provides immobilization of microorganisms in a multi-stage aeration tank. Principles of treatment are as follows. (i) The effect of multi-stage changes the b ...

Previous 1 2 Next

WIPO GREEN (PILOT)

Charter
Background
User Services
Partners
FAQs

E-NEWSLETTER

Subscribe to receive updates on WIPO GREEN

Technology Details > MSABP : Multi-Stage Activated Biological Process Treatment System

Technology Features

Description:

The MSABP(TM) is water purification technology based on a revolutionary biological treatment process in which a special biological carrier provides immobilization of microorganisms in a multi-stage aeration tank. Principles of treatment are as follows: (i) The effect of multi-stage changes the biota in each tank in an orderly manner, thereby forming a food chain. (ii) The biological carrier provides an environment in which microorganisms remain active and are able to treat highly concentrated effluent and hard to decompose effluent. MSABP can be used for the following applications. (i) Sewage treatment, (ii) Treatment of chemical effluent with high COD content (chemical plants, pharmaceutical plants, cosmetics plants, etc.), (iii) Treatment of hard to decompose effluent such as antiseptics and insecticides, (iv) Reduction in excess sludge from easy to decompose effluent such as effluent from food manufacturing plants. Teijin's goal is to develop wastewater treatment solutions for a variety of global applications, including through incorporation of advanced processing technologies such as MSABP and multi-stage ozone treatment system with hydrogen peroxide. It is hoped that these solutions will contribute to wastewater reuse, energy conservation and reduced emissions of CO2. The MSABP system has already been used in facilities that need advanced wastewater treatment, including chemical, dyeing and food manufacturing plants in Indonesia and China.



Major Resources to be Saved/Improved:

Summary of Benefits:

1. Suppresses the generation of excess sludge. MSABP reduces sludge disposal costs; not necessary to have a sedimentation pond or to return the sludge. 2. Absorbs the variations in the concentration of raw water ($\leq 50\%$). MSABP facilitates operation and management. 3. Also treats highly concentrated effluent (CODCr $\leq 50,000\text{mg/L}$). With MSABP, no dilution treatment required. 4. Also decomposes hard to decompose effluent (BOD/CODCr ≥ 0.15). MSABP also decomposes surface-active agents, etc.

Technology Type:

Technical Field(s):

Development Stage:

Project Record:

Process, Device or equipment, Facility
Waste management > Treatment of waste
At usable level

1. Indonesia Synthetic Fiber Plant. Wastewater property was synthetic fiber wastewater that contains preservatives. Treated amount was 200 m³/day. As bio-degradability metrics, 1,200 mg/L of CODCr and 0.15 - 0.25 of BOD/CODCr were achieved. 2. Teijin - Japan Sewage Works Agency Joint Project Cuts Excess Sludge 80% and Energy 10% - Verifies Effectiveness of Solution Using Multi-Stage Activated Biological Process. Teijin announced on September 16, 2010 that an 18-month pilot project conducted with the Japan Sewage Works Agency (JS) has demonstrated the effectiveness of the sewage-processing system based on Teijin's Multi-Stage Activated Biological Process (MSABP) wastewater treatment technology, including reductions of excess sludge by over 80%, energy consumption by up to 10% and CO₂ emissions by up to 15%. JS is a mainly publicly funded entity that promotes sewage treatment by providing technical support and personnel. The MSABP system uses special biological carriers packed with high concentrations of microorganisms in multi-stage aeration tanks. The resulting food chain enables wastewater treatment with reduced sludge, reduced energy consumption and low maintenance. The pilot project demonstrated that MSABP-based systems can reduce excess sludge by over 80% compared with conventional treatment methods. In addition, the system can be operated under optimized air supply conditions to the aeration tanks, helping to lower the total energy consumed in sewage treatment by up to 10%, as well as cut CO₂ emissions by up to 15%. The joint pilot project will continue for another year to evaluate its effectiveness in processing raw water before it enters the primary settling pond. The aim is to further reduce total sludge generation, as well as raise energy-consumption cuts to over 20%. Teijin and JS also will evaluate effective methods for incorporating MSABP into existing facilities.

Provider's Information

- TEIJIN LIMITED (Japan)
- Collaborating Partners: MSABP is a registered trademark of Aquarius Technologies Inc.

Further Information

- Please [login](#) to view more details.

Technology Seeds in WIPO GREEN Database (As of May 2012)

Technology Name	Provider	Country
1 Vertical Green Biobed for the efficient degradation of pesticides	University of Geneva	Switzerland
2 Organic adsorption heat pump system	Honda Motor Co., Ltd.	Japan
3 MSABP: Multi-Stage Activated Biological Process Treatment System	TEIJIN Ltd.	Japan
4 Home appliance recycling technologies	Hitachi Ltd.	Japan
5 Biological oil production from unused woody biomass and utilization networks	Waseda Environmental Institute (WEI)	Japan
6 HEMS, Co-benefit type environmental consideration action support system and program	Waseda Environmental Institute (WEI)	Japan
7 ULV, Ultra Lightweight Vehicle	Waseda Environmental Institute (WEI)	Japan
8 Method of Paper fastening and Document Preparation Device	Fujitsu Limited	Japan
9 Lead(Pb)-free solder	Fujitsu Limited	Japan
10 Pinapple Paper	UTM Innovation and Commercialisation Centre	Malaysia
11 Pinapple Plastic	UTM Innovation and Commercialisation Centre	Malaysia
12 Hybrid Lagoon System ("HLS")	Rural Environmental Research Association	Japan
13 Parabolic Solar Concentrators Using Optimized bands	Massachusetts Institute of Technology (MIT) TLO	United States
14 Biomimetic Spiral Pattern for Heliostat Layouts	Massachusetts Institute of Technology (MIT) TLO	United States
15 CSPonD: Concentrated Solar Power on Demand	Massachusetts Institute of Technology (MIT) TLO	United States
16 Solar Power Tower with Direct Absorption of Solar Radiation in a Salt Bath with Nanoparticles	Massachusetts Institute of Technology (MIT) TLO	United States
17 Improvements on Horizontal-Axis Wind Turbines	Massachusetts Institute of Technology (MIT) TLO	United States
18 Secure prepaid payment platform for clean energy	Simpa Networks, Inc.	India

Agenda

- Introduction of Japan Intellectual Property Association (JIPA)
- Concept of Green Technology Packaging Platform (GTPP) Project in JIPA
- Cooperation of JIPA and WIPO in WIPO GREEN: Current Status
- Ultra Light-weight Vehicle (ULV) :
Green Technology in the WIPO GREEN Database from Waseda Environmental Institute (WEI) in Japan
- WIPO GREEN: Current Issue

Waseda Environmental Institute (WEI)



Dr. Hiroshi Onoda
Associate Professor, Waseda University
President, Waseda Environmental Institute Co., Ltd.
<http://e-wei.co.jp>

Dr. of Engineering (Waseda University)



Research Area:

Life Cycle Assessment (LCA) of Products, technologies and system, 3R, environmental friendly products and service, recycling system, new energy and energy saving, a local-supply-and-local-consumption biomass system, a next-generation mobility system, etc. are turned to the advancement of a sustainable society or low carbon society made into the keyword, and they are new technological developments and advanced social system research.



Outline of WEI

The system and the product development, and the consulting business which utilized the [Waseda University](#) research result.
 The synthetic consulting skill which can especially respond that it is one-stop
 An incubation function which produces a new enterprise and a new business model

Corporate profile

Trade name: Waseda Environmental Institute Inc.
 Establishment: August 26, 2003
 Capital: 66 million yen
 WEB:<http://e-wei.co.jp>
 E-mail: info@e-wei.co.jp

Business Fields

Mobility & Power solutions
 Automobile aftermarket
 Energy Management
 Smart Community
 Project coordinator & consulting

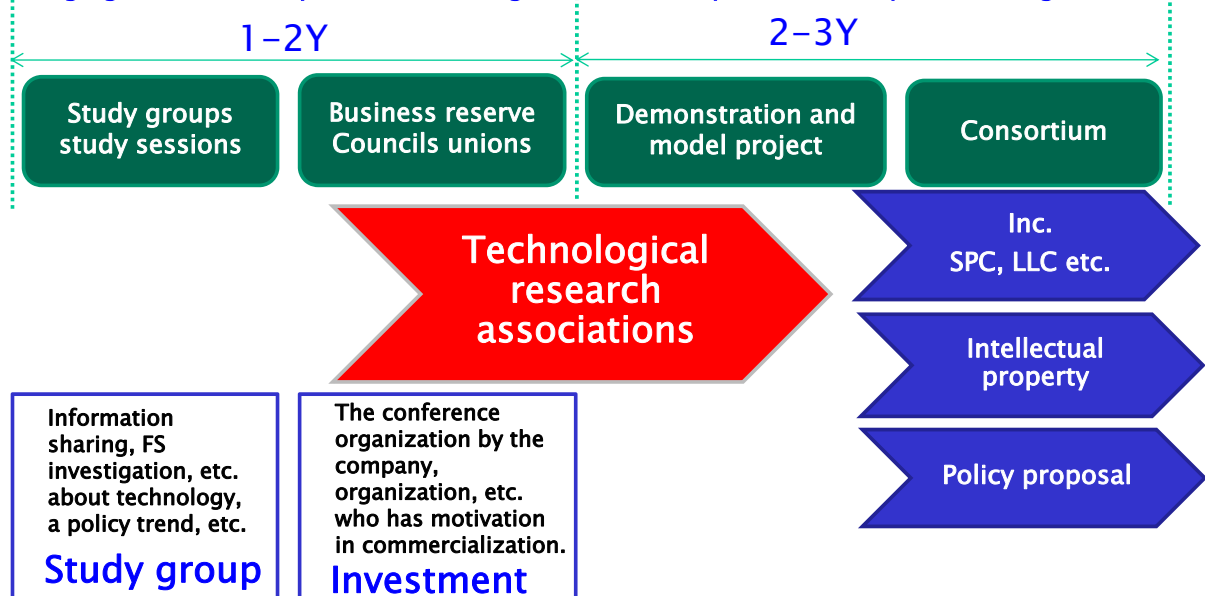


Role of WEI

Lack of vitality and determination to create and innovate of a new industry, enterprise, market, etc. are promoted.

Shortage of the "human resources" and the "place"

Packaging of the industry, academia and government cooperation enterprise which gazed at the exit



Business fields of WEI

Mobility & Power solutions



ULV



Battery

Automobile aftermarket



Eco-drive



Recycled Parts



Energy Management



Software



BEMS

Smart Community



Honjo



Kitakyusyu

Management consulting



Human Resources



Energy saving

Project coordinator & consulting



Renewable Energy



Woody-Biomass

Concept of ULV

*“Under an automobile more than a bicycle.”
The next generation mobility ULV (Ultra Lightweight Vehicle).*

ULV is the personal mobility developed by Waseda University Nagata & Onoda laboratory.

Item	Specification
Weight	72.6 kg
Continuous range	80km
Maximum Speed	40km/h
Charging time	4.0 h
Motor Output	400W
Charge amount for 1 time	About 35 Yen



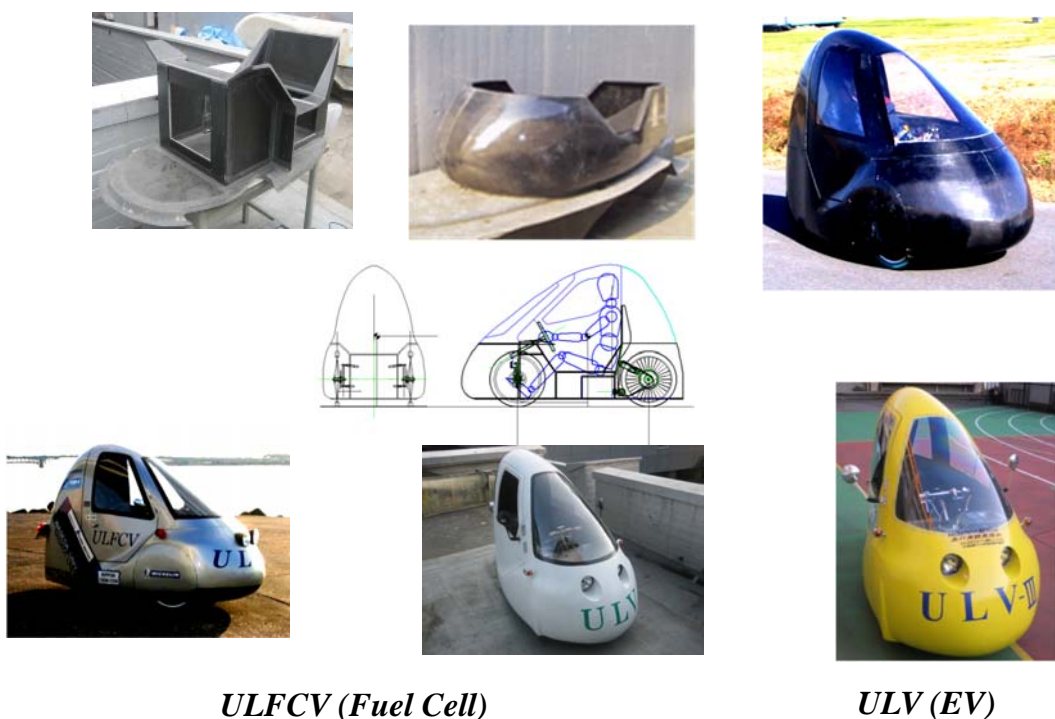
*The ultimate personal mobility which runs by the electric power of one washing machine
One about 10 times the fuel efficiency of Prius*

Features of ULV

Item	Effect
EV	Environmental friendly
By Waseda University	Topicality
Multi-Prime Mover	Operation which suited regional characteristics
BODY changeable	Reflect local need
Simple structure	Manufacture is simple
Small size	Run in narrow alley
Characteristic body	High attention
Personal	Extracted needs

21

Former of ULV

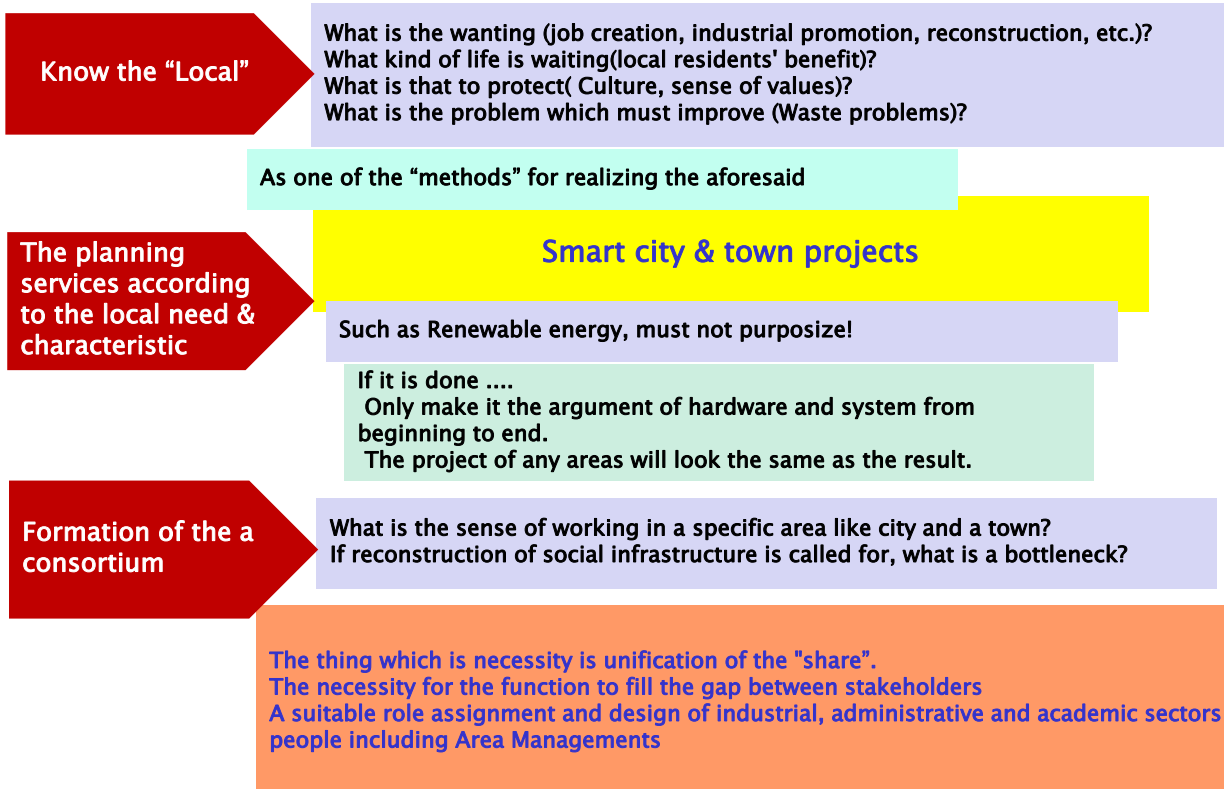


22

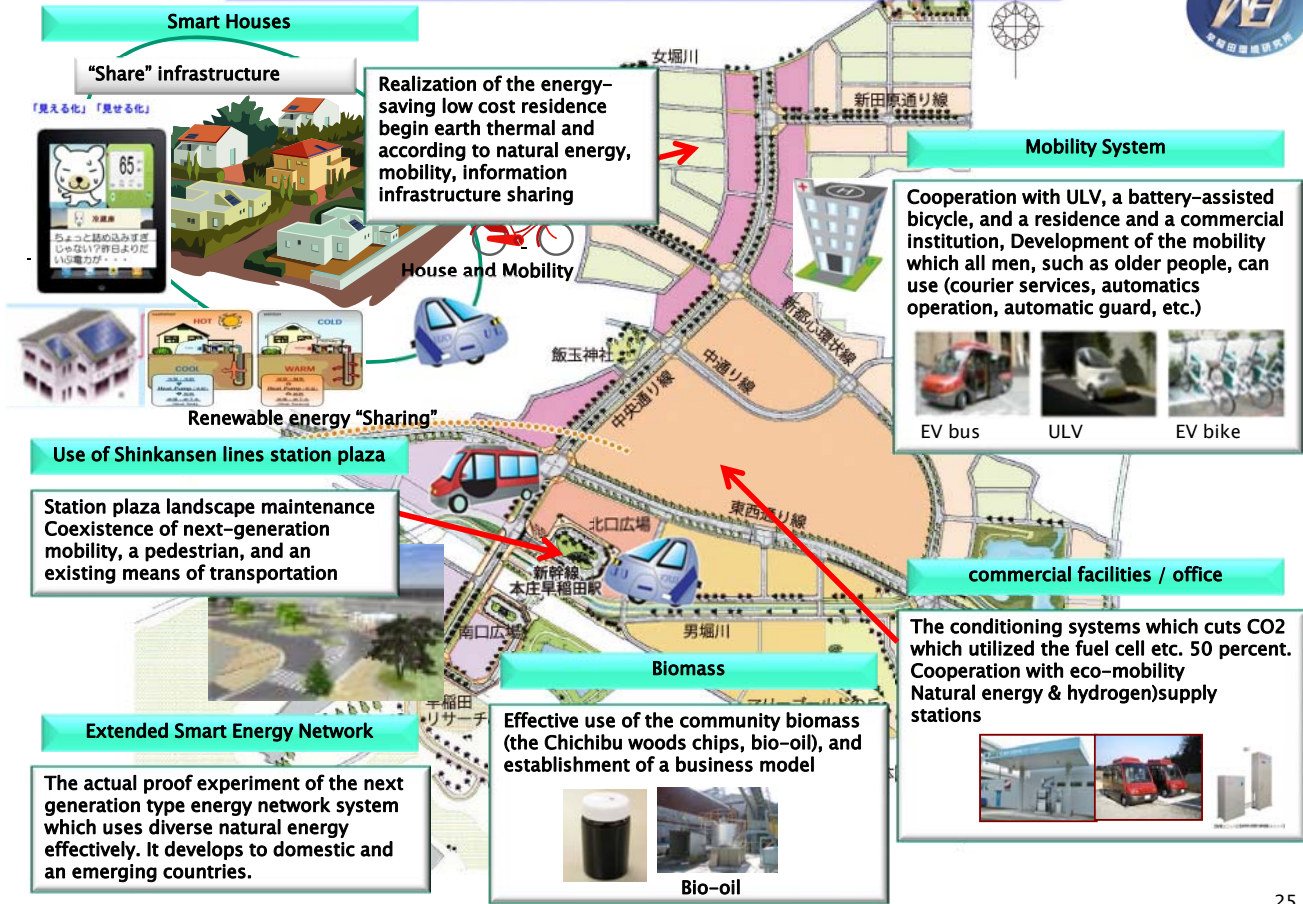
Current Application of ULV



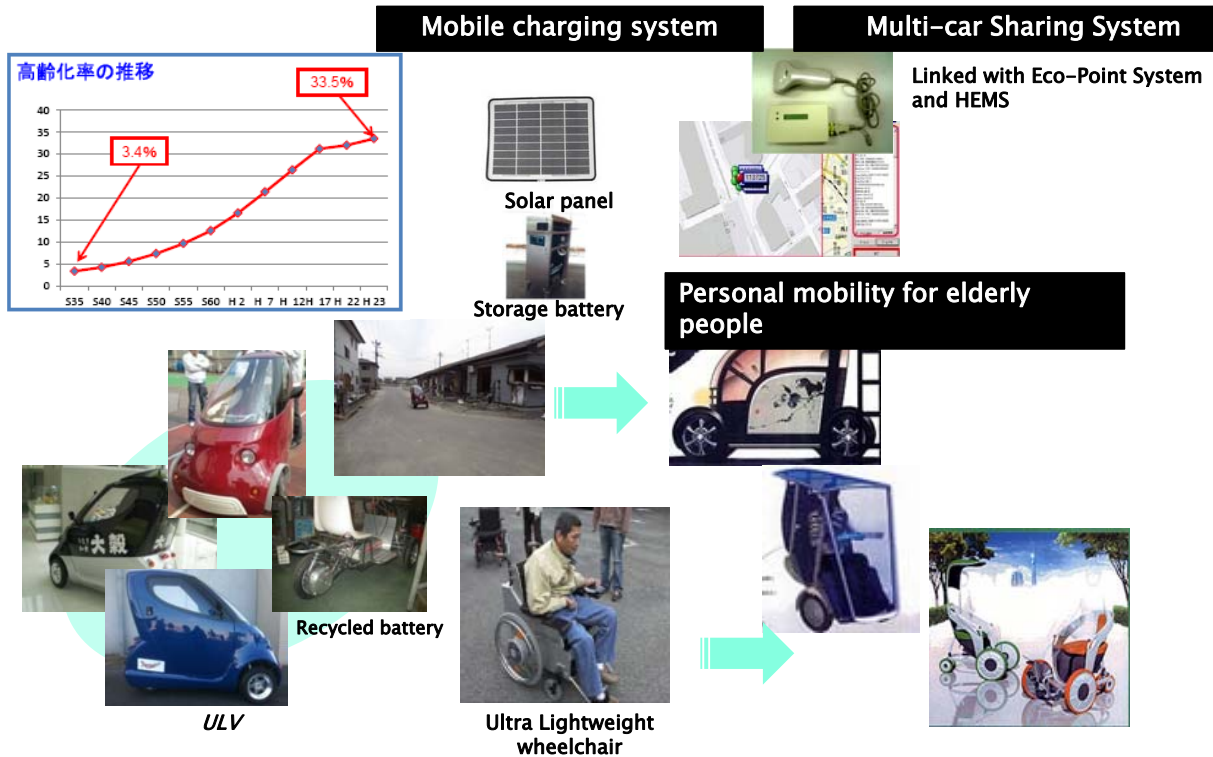
Demanded approach for Smart Community Project -The argument on Technology transfer is similarly-



Honjo Smart Energy Town Project



Development of “independent-type” mobility system corresponding to super aged society



ULV was used as a moving tool in the areas affected by the Great East Japan Earthquake

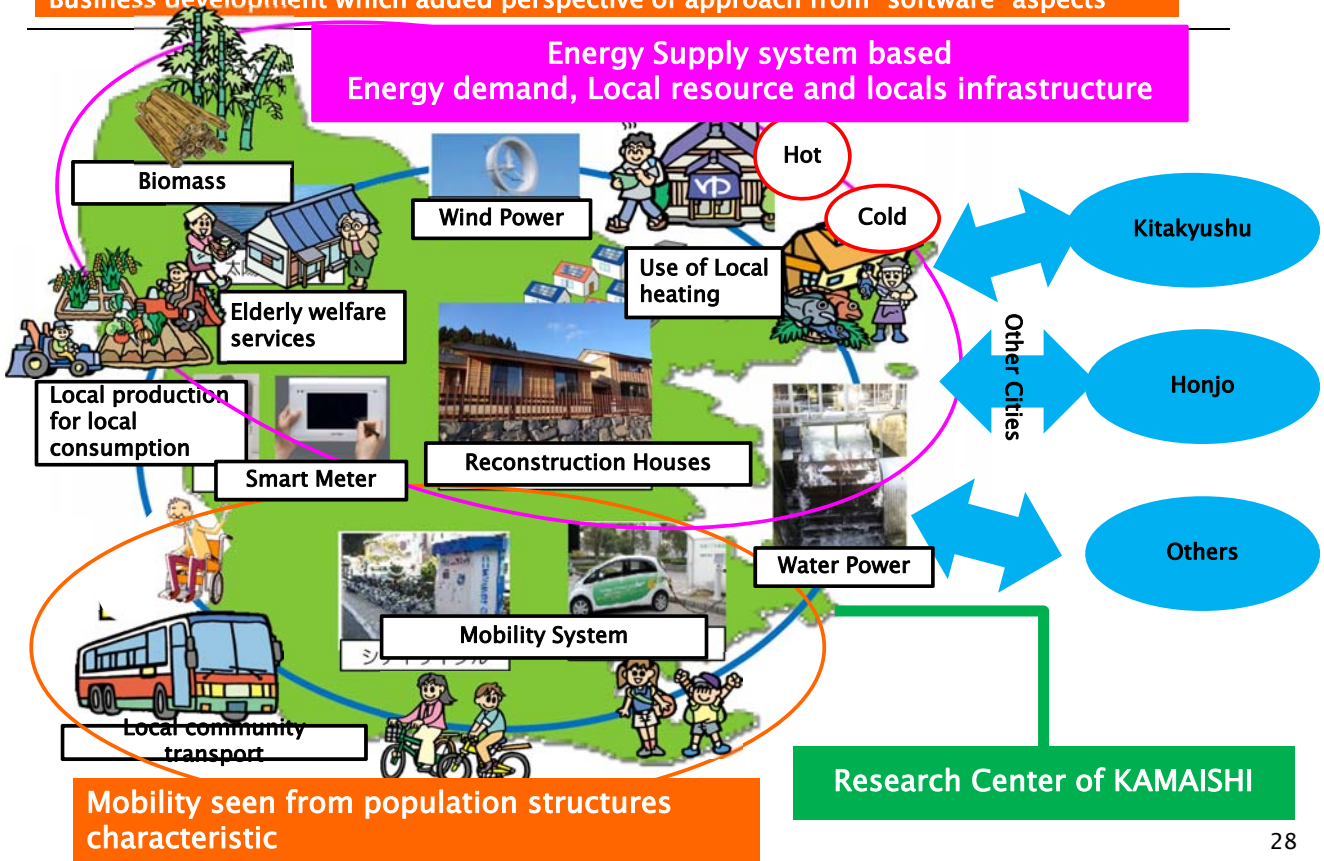


27

Environmental Research Institute, Waseda Univ. -Research Center of KAMAISHI



Business development which added perspective of approach from "software" aspects



28

Overseas market conditions

Area	Purposes
South Asia	As alternative vehicles of TUKTUK The commercialization which made local.
South Asia (island countries)	The mobility for sightseeing of an island.
Pacific Ocean (minor islands)	Car Sharing System by ULV
East Asia and Southeast Asia	Searching for production bases and business partners.

29

In order to promote the technology transfers –
Approach from the thorough demand side –



- The technology transfers is difficult only by gathering solutions, such as a technology and systems.
- It is important to form the organization of the technology transfer which has grasped local need and matched it.



WEI try to become the “coordinator”.

30

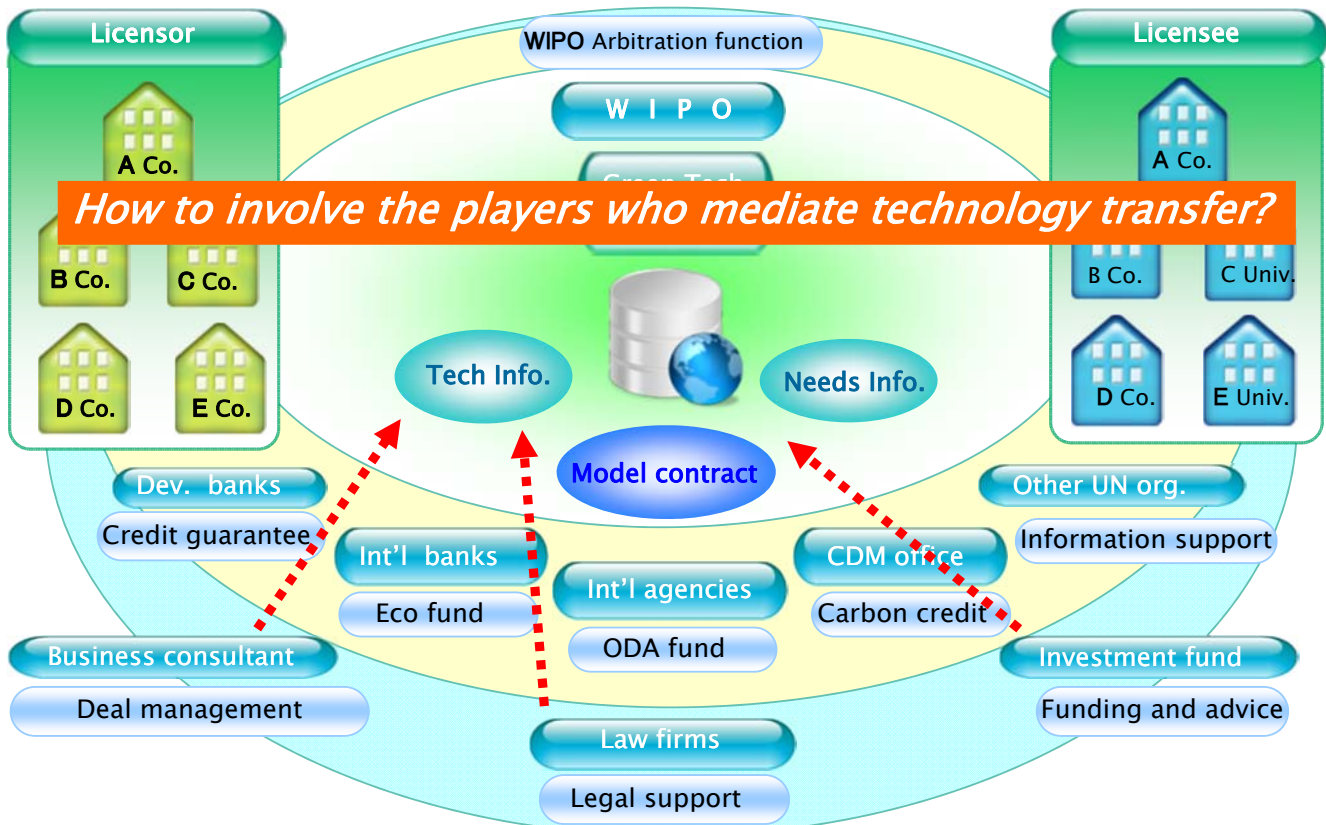
Agenda

- Introduction of Japan Intellectual Property Association (JIPA)
- Concept of Green Technology Packaging Platform (GTPP) Project in JIPA
- Cooperation of JIPA and WIPO in WIPO GREEN: Current Status
- Ultra Light-weight Vehicle (ULV) :
Green Technology in the WIPO GREEN Database from Waseda Environmental Institute (WEI) in Japan
- WIPO GREEN: Current Issue

Responses to Introduction of WIPO GREEN

Prof of Major University and President of Environmental VC	<ul style="list-style-type: none"> ■ Positive ■ We are ready for participating WIPO Green
General Manager, Global Investment, Major Trading Company A	<ul style="list-style-type: none"> ■ Positive ■ If needed, we will assist.
Senior Manager, CO2 Emission Project, Major Trading Company B	<ul style="list-style-type: none"> ■ Negative ■ We have performed our businesses with the evaluation of risks.
Senior Manager, US-based IP Law Firm	<ul style="list-style-type: none"> ■ Negative ■ Mediation of Technology Transfer needs large amount of money itself.
Senior Consultant, Government agency of EU Country	<ul style="list-style-type: none"> ■ Neutral ■ Technical mediator must be involved.

Comprehensive Image of WIPO GREEN



Thank you for your attention.

y.suwa@teijin.co.jp