

WIPO Regional Seminar on Intellectual Property,
Technology Transfer and Commercialization
August 28, 2014



**Tomioka Silk Mill,
Tomioka City, Japan**

**2014, UNESCO World
Heritage Site**

Intellectual Property(IP) Management for Technology-centric Small and Medium- sized Enterprises

In the mid 19th century , Japan began to trade high quality of silk to the Western countries, because the low quality of raw silk was produced by hand during that period. The successful industry has triggered many industrial innovation including Sakichi Toyota who invented the power loom and its successor then produced own automobiles in the mid 20th century in japan.



Ichiro Nakatomi Ph.D.

President & CEO

NanoCarrier Co.,Ltd.

1. Company Overview

NanoCarrier Co.,Ltd. –Japan based the one of leading Biotech



Using from nanotechnology “Polymeric micellar nanoparticles”, to engage in the design and the drug to manufacture and development of new pharmaceutical products primarily. Design functional nano capsule carrying pinpoint the affected area, and to achieve a reduction of side effects and enhancement of efficacy, it is possible to improve QOL of patients. Alliance number of domestic and foreign.

Highlights

- 2000 Started real activity
- 2004 NK105 Phase I
- 2006 NC-6004 Phase I
- 2007 NK105 Phase II (Gastric)
- 2008 Listed on Tokyo SE (Code: 4571)
- 2009 NC-6004 Phase I/II (Pancreatic)
- NC-4016 Phase I
- 2010 NK105 Phase I (Breast)
- Sold cosmetic essence “eclafutur-W”
- 2011 NC-6300 Pre-Clinical
- NC-6004 Phase II (Pancreatic)
- 2012 NK105 Phase III (Breast)
- NC-6004 Phase I
- 2013 NC-6300 Phase I
- NC-4016 Phase Ib/II (NSCL)
- Sold New cosmetic essence “eclafutur”
- 2014 NC-6004 Phase III (Pancreatic :Asia)

| Product | Cancer Indication (Partnering) | Clinical trial | | | |
|---------|--------------------------------|----------------|------|------|------|
| | | Area | Ph 1 | Ph 2 | Ph 3 |
| NK105 | Breast (NIPPON KAYAKU) | Japan | | | |
| | | Asia | | | |
| NC-6004 | Pancreatic (Orient Europarma) | Asia | | | |
| | | NSCL | | | |
| | Solid | Japan | | | |
| NC-4016 | Solid | USA | | | |
| NC-6300 | Solid (KOWA) | Japan | | | |

Company Strategy



Drugs with Proof of Concept

Pharmaceutical products, approved and/or under clinical development

Develop new efficacy and dosage regimen & expand therapeutic windows by improving pharmacokinetics

In-house Development & Alliance

Collaborative Research & Development /License

Continued and well-balanced strategy on in-house development as well as R&D alliance & collaboration

Target market

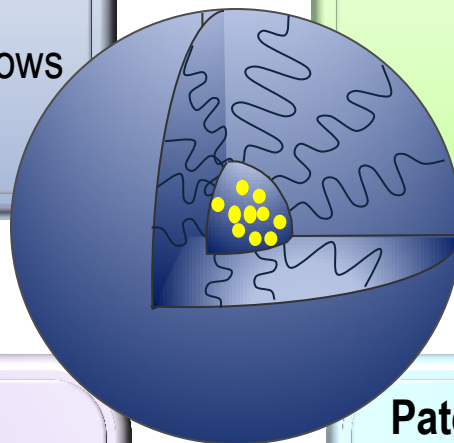
Develop global market

to accommodate un-met medical needs

Intellectual Property

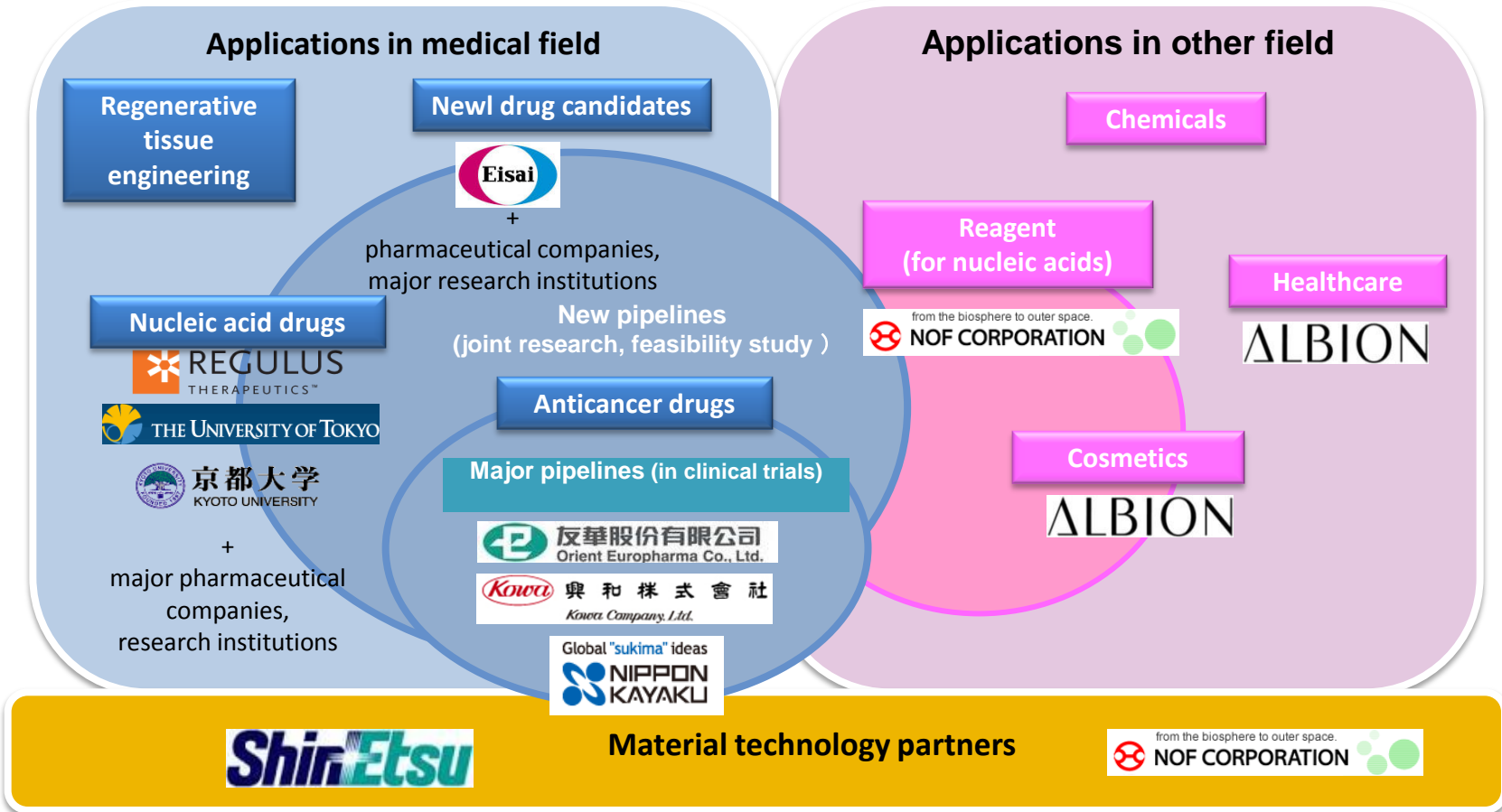
Patent Exclusivity & Extension of Life-cycle Management

- Secure competitive advantages of platform technology and its positioning as strong patents holder
- Extend patent right protection period



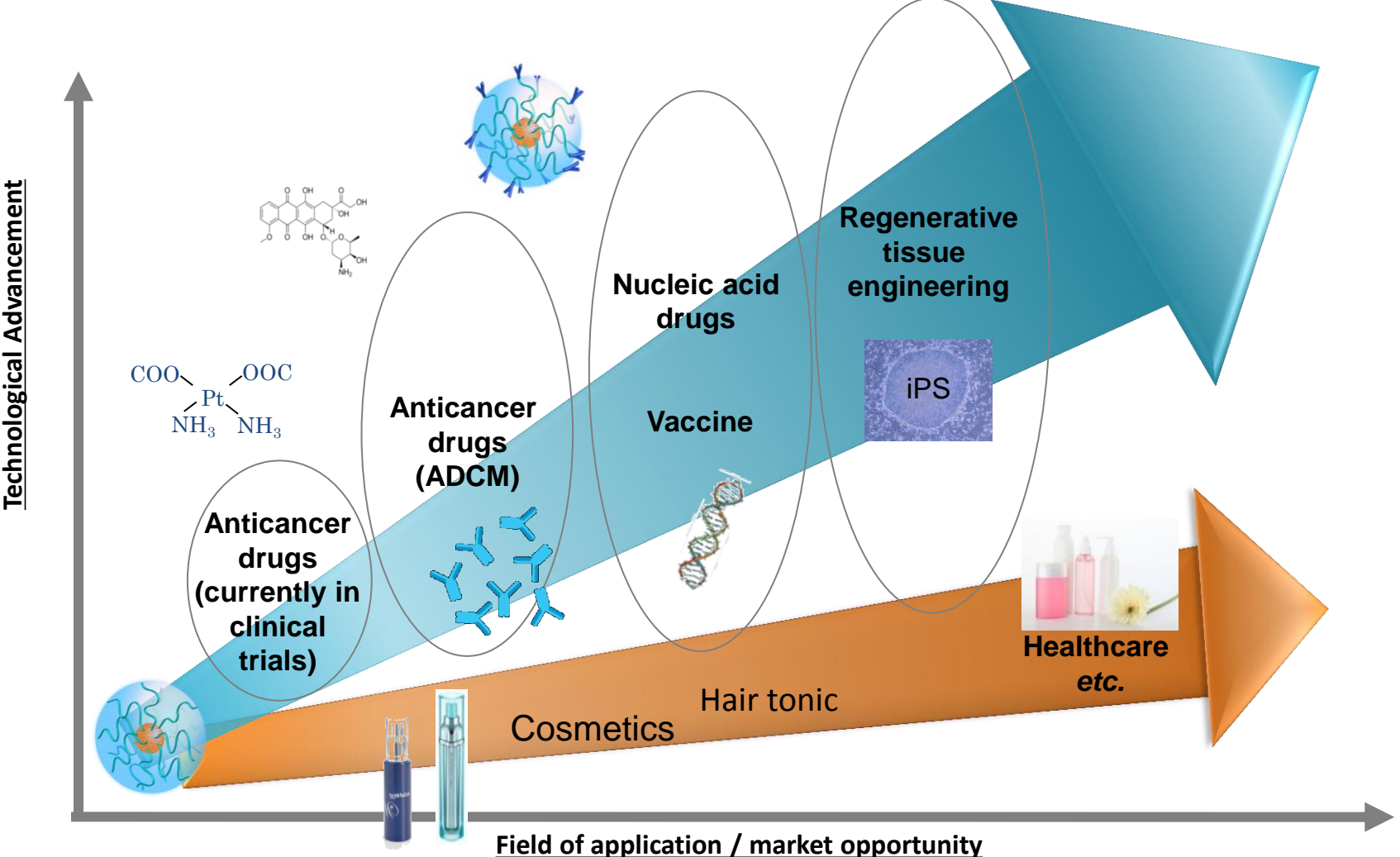
Partnership in 3 different areas

We plan to further expand the application of our technology both in the medical field and in other fields
 In other fields, we expect to expand areas of application by reducing raw material costs



New business developments incorporating our micellar nanotechnology

- Aim to advance current micellar technology to ADCM – Sensor linked active targeting
- Aim to expand application from oncology focused drug development to other fields



Patent strategy – Life cycles Management



drug substance

Patent expiries

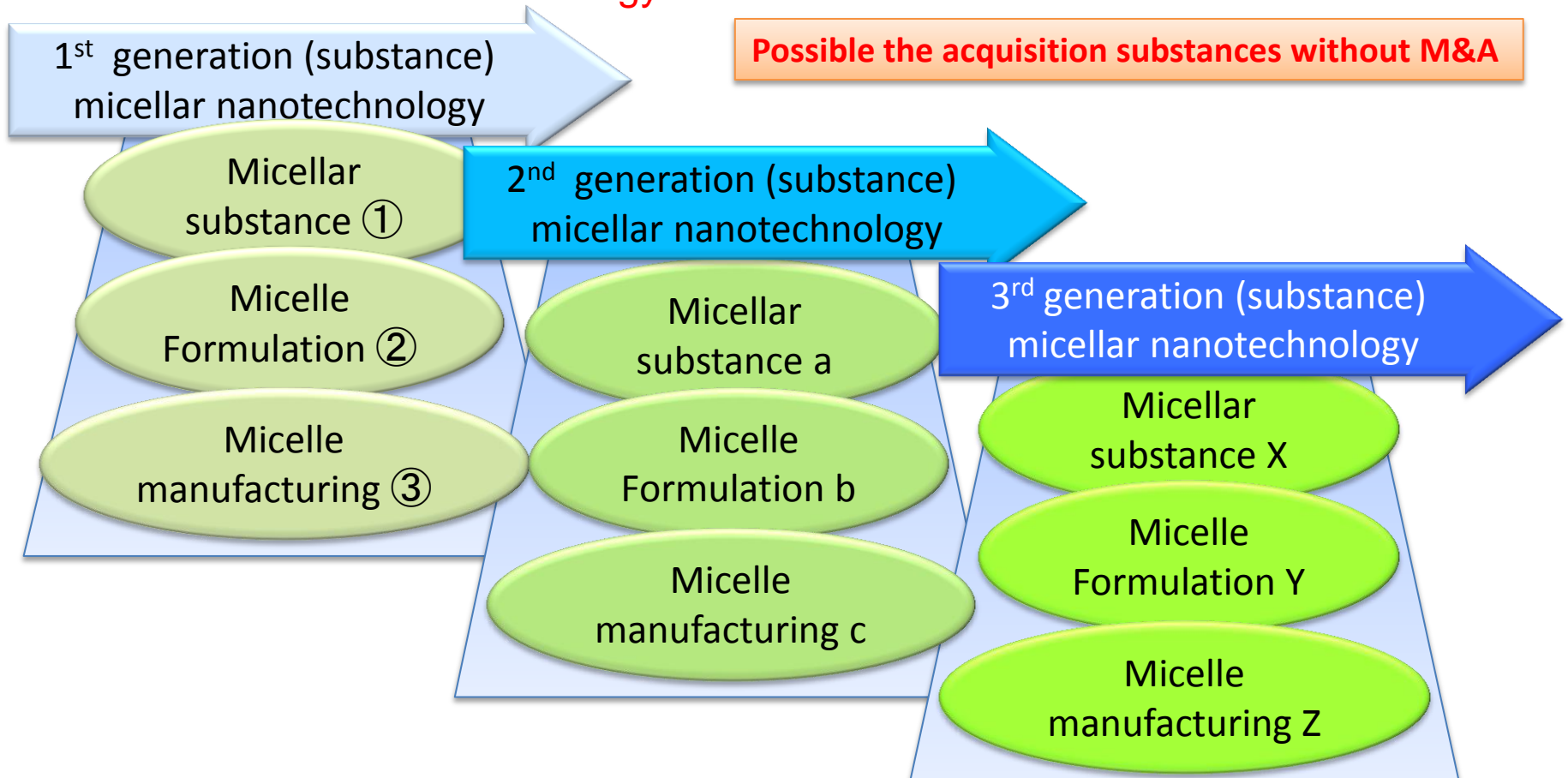
Pharmaceutical companies held

New drug substance

New drug substance

Pharmaceutical companies suspended

Modification of Platform technology



2. Business Partnering for Asian expansion

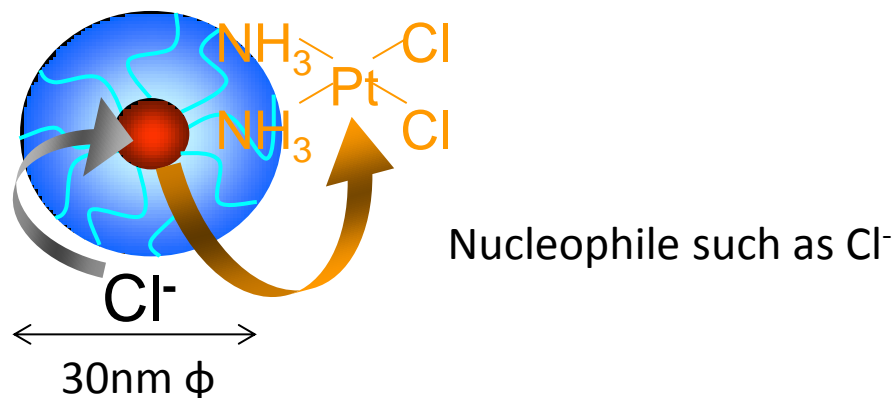
Core Technology : Polymeric Micellar Nanoparticles



pharmaceutical NC-6004 Nanoplatin[®]

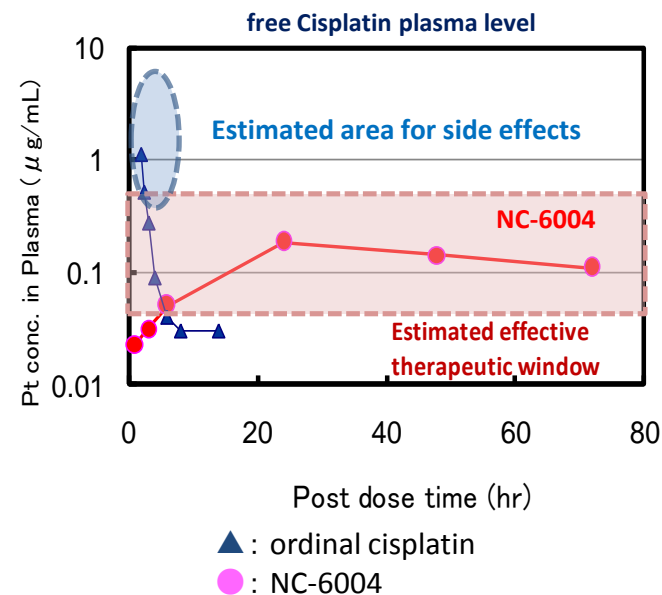
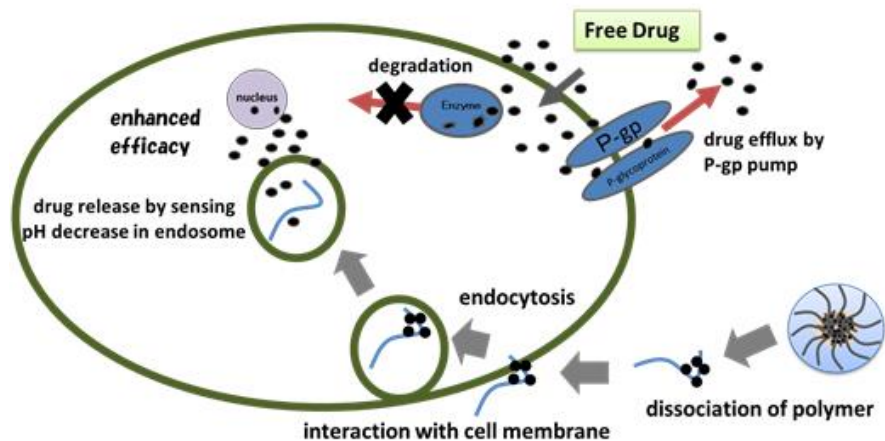
Polymeric micellar nanoparticles is conjugated with anti-cancer agent "cisplatin"

☆ New drugs aimed at reducing adverse effects and increase the anti-tumor effect.



Functional drug release in the body for a long period.

Targeted site of action



Case study : 1



Pharmaceutical
Partnering strategy of NC-6004 Nanoplatin®

Asian region

Orient Europharma Co., Ltd.



Founded in 1982, Orient EuroPharma Co., Ltd (OEP) was officially listed in the Gre-Tai Securities market in 2003, and consolidated net sales exceeded \$4.5 billion in the 2013 financial year. Currently, OEP has more than 760 staffs worldwide, in which over 40% are overseas employees. OEP's products include pharmaceuticals, cancer drugs, cosmeceutical, infant & adult nutrition and healthcare products. OEP also established a subsidiary company focused on developing and manufacturing new drugs. OEP is one of few pharmaceutical companies able to integrate pharmaceutical research & development, clinical trial, manufacture and marketing in Taiwan. In 2013, OEP was named 2nd Benchmark Pharmaceutical Company in 2013 The Leading Biomedical Businesses of Taiwan by the Institute for Biotechnology and Medicine Industry. Common Wealth Magazine also placed OEP among the top thousand large enterprises for three consecutive years.

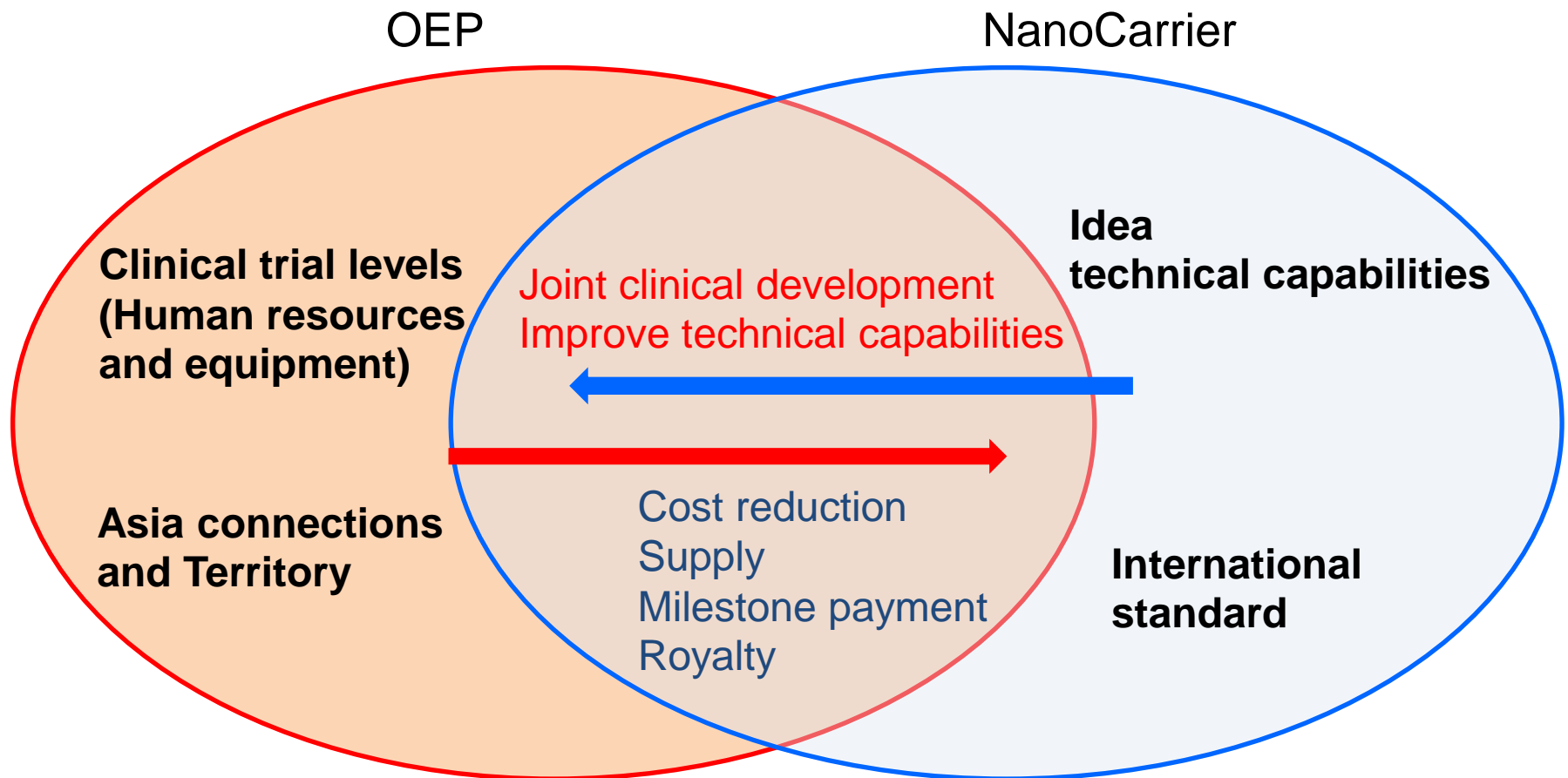
A New ware in that area: Partnering strategy of NC-6004 Nanoplatin®



Asia region

It's a very rare case of alliance between Japan and Asia countries as the early clinical stage of product.

Match the needs



Market and license territory for NC-6004 Nanoplatin®



Asian region



| Product | Cancer Indication | Clinical trial | | | |
|---------|-------------------------|----------------|-----------|-----|-----|
| | | Area | Ph1 | Ph2 | Ph3 |
| NC-6004 | Pancreatic (Partnering) | ASIA | [Red bar] | | |
| | NSCL (In house) | USA | [Red bar] | | |
| | Solid (In house) | JAPAN | [Red bar] | | |

9,529 one hundred million U.S. dollars pharmaceutical market in the world (2011)

Three major markets of Japan, the United States and Europe are market expansion as well as ever but, BRICs countries and emerging Asian countries have been increased its share to more than that.

| | (2007) | | (2011) |
|--------------------|--------|---|--------|
| Emerging countries | 18.4% | ↗ | 24.4% |
| Japan | 9.0% | ↗ | 11.7% |
| USA | 41.1% | ↘ | 36.2% |
| EU | 31.4% | ↘ | 27.7% |

Asia region

There are important issues remained at the region

- ◆ Is it possible to obtain a proper approval?
- ◆ Is it possible to obtain an appropriate value?

Due to Governmental Control Issue

Challenge of partnering for NC-6004 Nanoplatin®



Asia region

NC-6004 (Nanoplatin®)

Signing Ceremony of New Licensing Agreement, including non-exclusive world-wide manufacturing rights of NC-6004 (Nanoplatin®) and equity investment by NanoCarrier into a new manufacturing subsidiary of OEP to be established, Between NanoCarrier and Orient Europharma in the presence of Taiwan Government

November, 2012



Signing Ceremony

Left: President Dr. Ichiro Nakatomi,
Middle: Dr. Oliver Yoa-pu Hu, Minister of Examination, Executive Yuan
Right: President Mr. Peter Tsai



Accompanying Director General of TFDA
Dr. Jaw-Jou Kang (Right)

Challenge of partnering for NC-6004 Nanoplatin®



Asia region

Japanese government / Taiwan government

November, 2013 Pharmaceuticals

「 Japan and Taiwan regulatory cooperation agreement 」

December 2013 in Taiwan

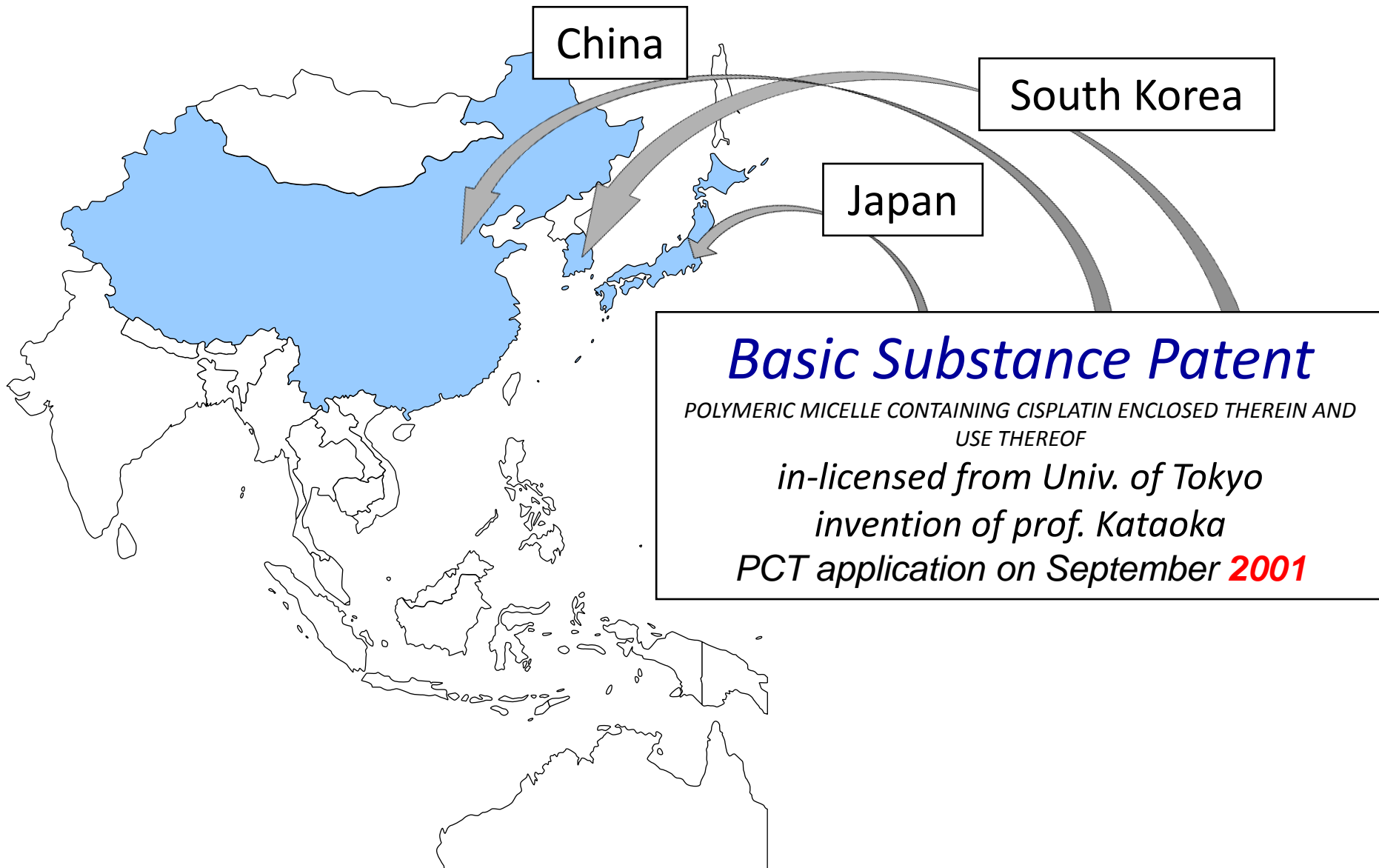
1st Joint Conference of Taiwan and Japan on Medical Products Regulation

Globalization of development, manufacturing, trade, and marketing of pharmaceutical drugs has been progressing, and cooperation of regulatory activities amongst pharmaceutical regulatory agencies of each region has become a necessity. Nowadays, Asian countries have become significant in clinical development and manufacturing of drugs globally, and therefore, the collaborative relationship among the Asian regulatory agencies are becomes highly important. This symposium is the first joint conference being hosted by East Asia Relations Commission and Interchange Association, Japan, with focus on pharmaceutical regulations and health insurance system. The aim of this joint conference is to enhance mutual understandings, and to construct a basis in a cooperative system across the region for further development in pharmaceutical regulations and health insurance system. In a related development, between Japan and Taiwan, that both chairman Association on November 5, the Association of East Asian Relations has signed the MOU of 5 items including pharmaceutical, further exchanges increase future is expected.

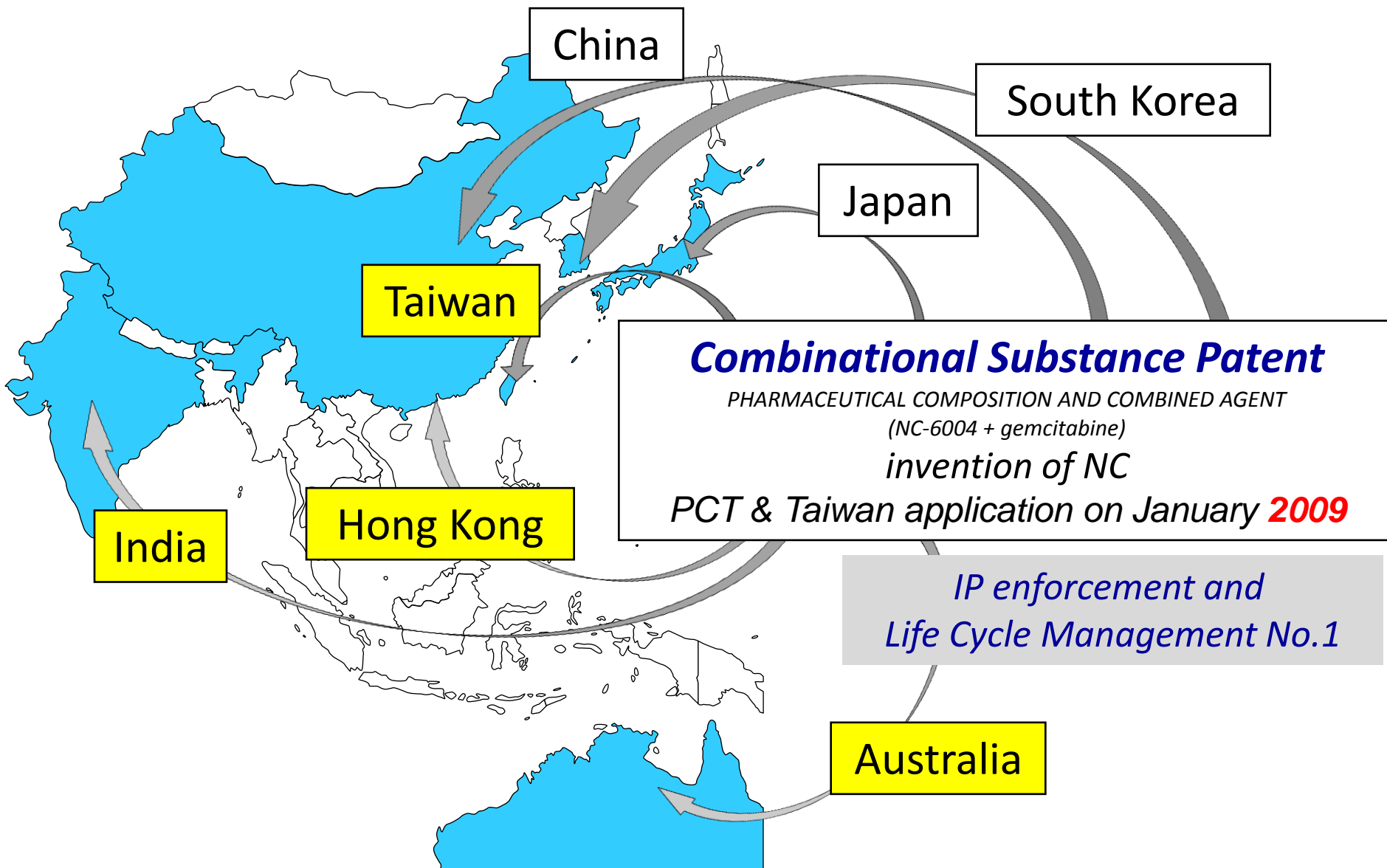
-East Asia Relations Commission, Interchange Association, Japan

-Pharmaceuticals Medical Devices Agency, Center for Drug Evaluation, Japan Pharmaceutical Manufacturers Association, Japanese Chamber of Commerce & Industry, Taipei, International Research-Based Pharmaceutical Manufacturers Association, Taiwan. Pharmaceutical Manufacturers Association, Taiwan Research-based Pharmaceuticals Manufacturers Association

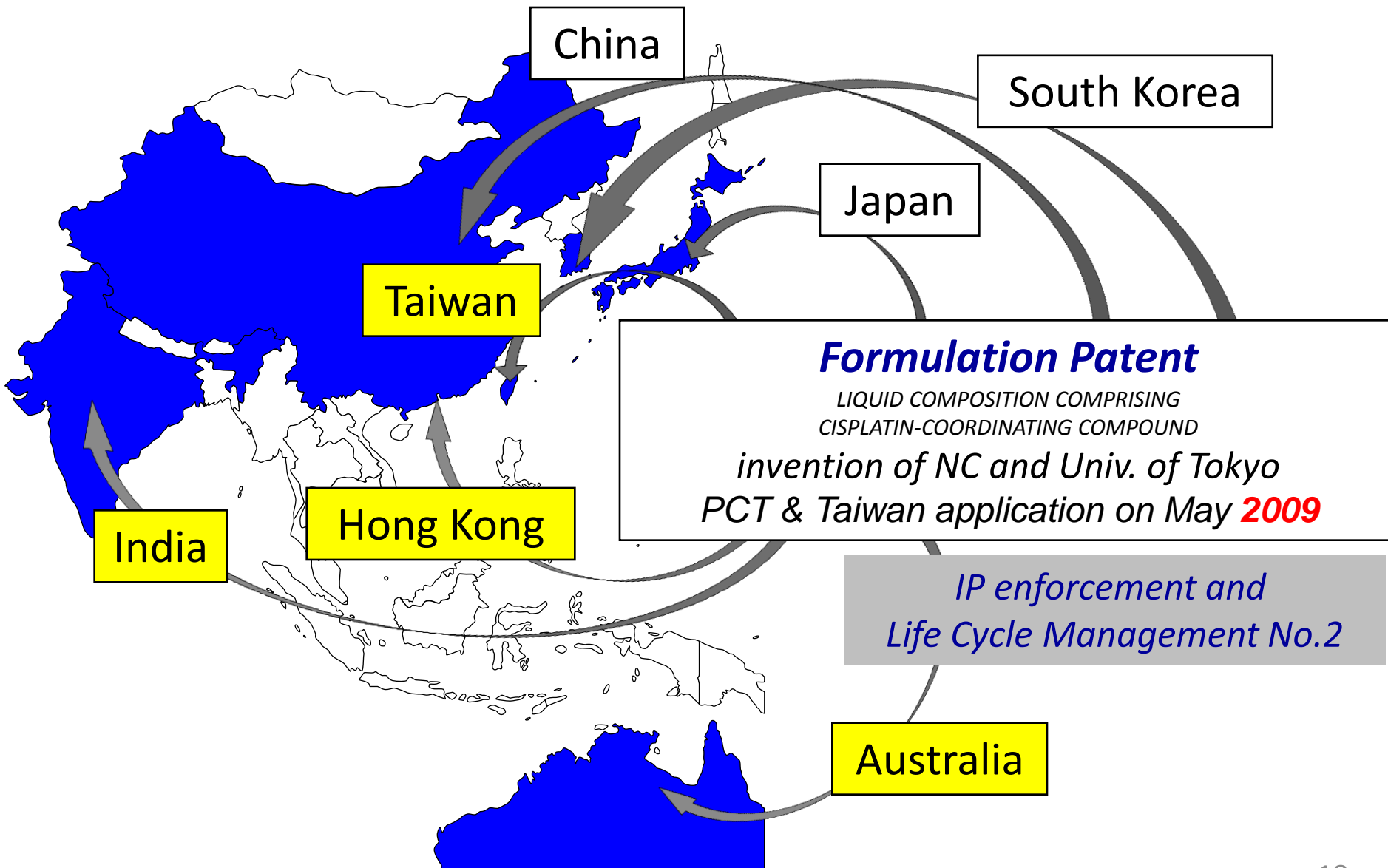
Asian IP strategy of NC-6004 Nanoplatin®



Asian IP strategy of NC-6004 Nanoplatin®



Asian IP strategy of NC-6004 Nanoplatin®



1. Developmental force / Sales force
 - Business power
 - Regional market penetration
 - Technical fitness

2. Confidence
 - Confidentiality
 - Technical information handling capabilities
(data encryption)
 - Employment stability
(technology leakage suppression)

3. Consistency of company culture
 - Globalization

Case study : 2

Cosmetics Partnering strategy

ALBION Co., Ltd.

ALBION



Shoichi Kobayashi
President and CEO

ALBION was founded on March 2, 1956, with the vision that it would "become the best prestigious cosmetics manufacturer in Japan and the world." Since then, we have continued to pursue superior quality through cutting-edge technological innovation and the dedication to developing authentic products that was a characteristic of the company's establishment.

About ALBION Co., Ltd.

■ Top Company for High-end Cosmetics

Headquarters: 7-10, Ginza 1-chome, Chuo-ku, Tokyo 104-0061

Employee: 2908 (480 men and 2500 women)

Cosmetics Brands: ALBION , IGNIS, Elégance, SONIA RYKIEL, ANNA SUI, PAUL&JOE, Les Merveilleuses LADURÉE

Technology sharing and brand licensing for cosmetic product



NanoCarrier found that components (moisturing and regenerative tissue) were encapsulated in the micellar nanoparticles remain on the skin epidermis and act in the desired part for a long time.

Patent application 2007



e'clafutur^W
essence



Oct. 2010 Products developed and sales in-house “e'clafutur-W”

Jul. 2012 Collaboration Agreement on Development of New Cosmetic Product with ALBION

Joint development
Sales licensing
Brand Licensing

NanoCarrier will provide ALBION with basic material formulation and its proprietary technology, where ALBION will undertake the commercialization of cosmetic product.

A big hit selling!

Successful launched from October 18, 2013 in JAPAN

400,000 bottles of e'clafutur have been sold after 6 month release.

Overseas expansion

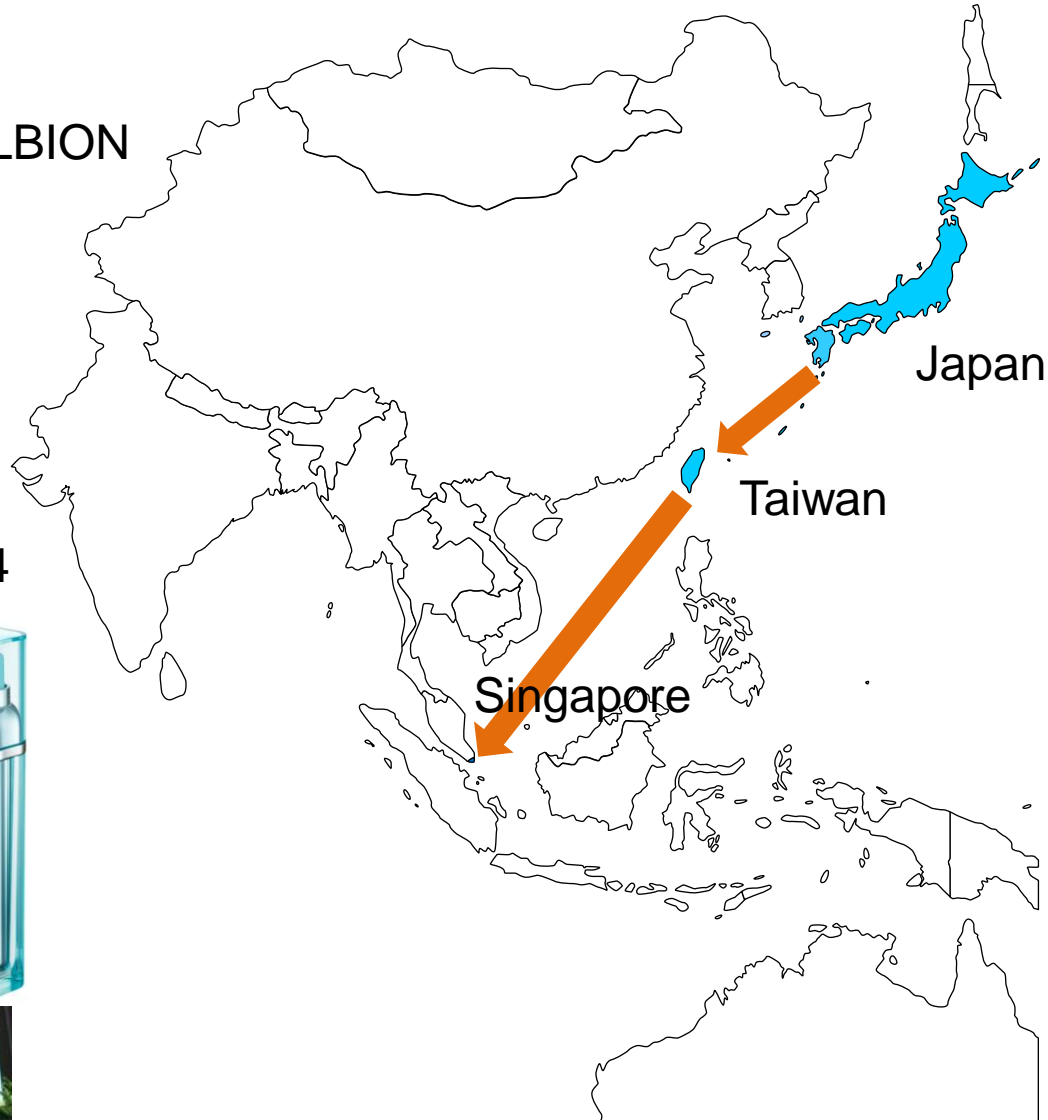


The distribution area is undergoing expansion by ALBION

Takashimaya Singapore

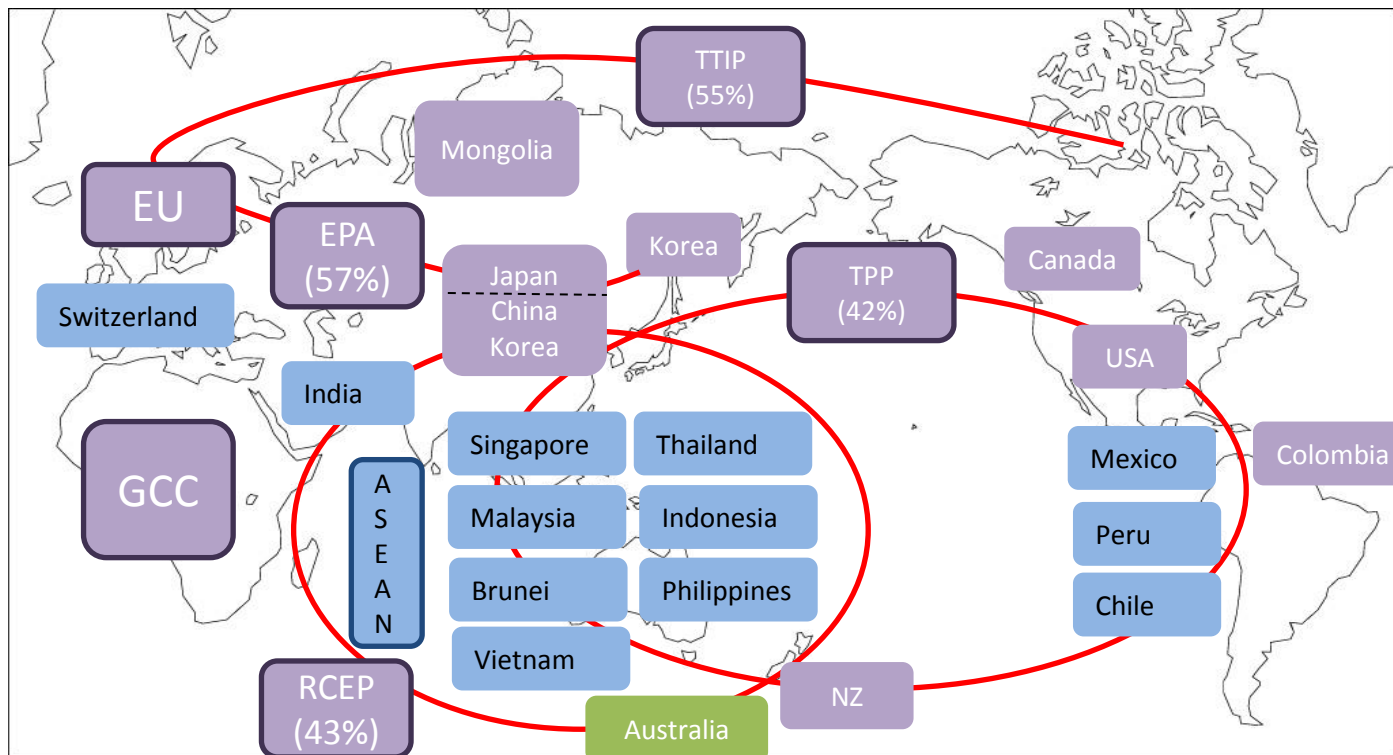
Launched from July 1, 2014

1F ALBION



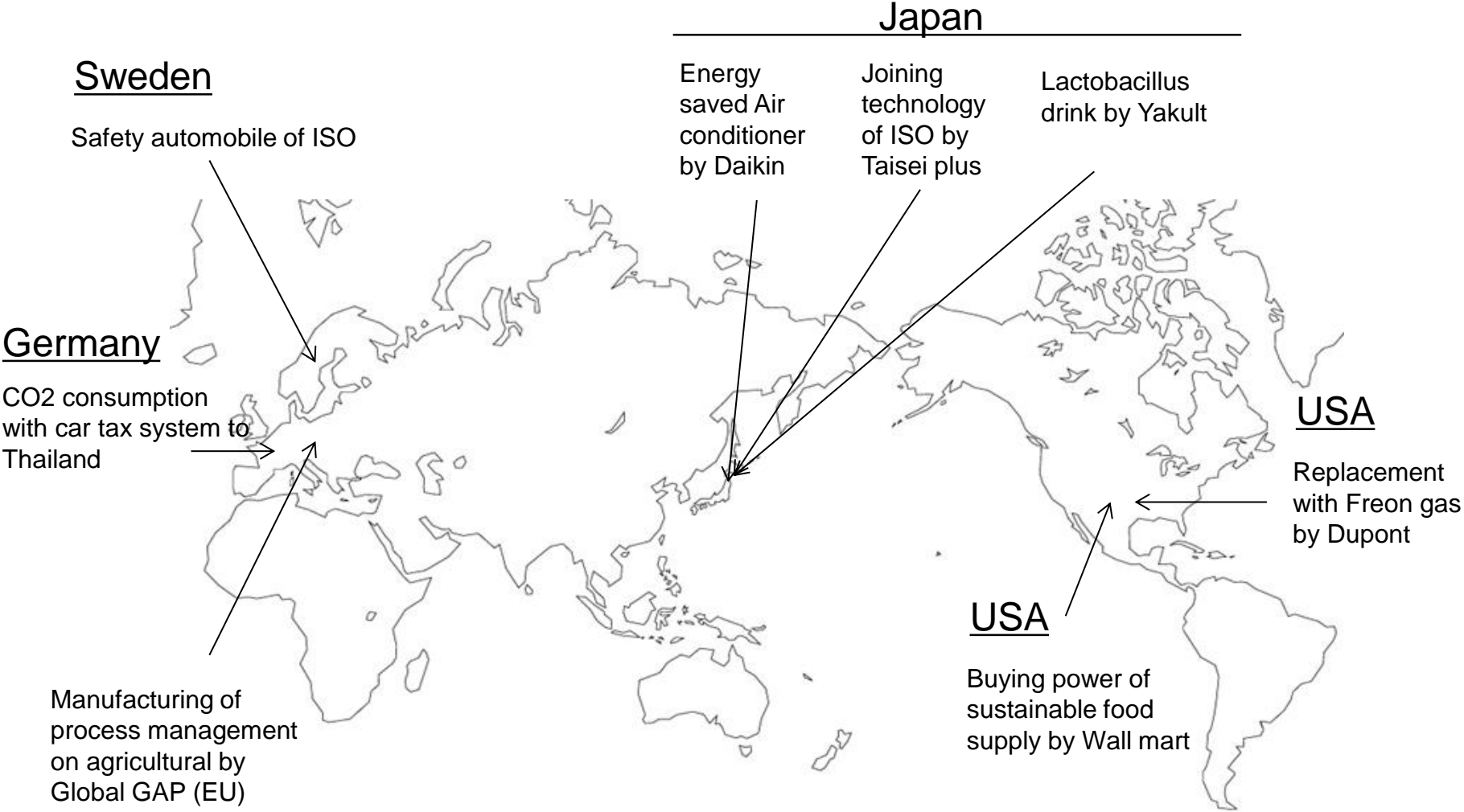
Japan for 4 Free Trade Agreements (FTA)

- Outstanding (12 countries and 1 region): Singapore, Mexico, Malaysia, Chile, Thailand, Indonesia, Brunei, ASEAN, the Philippines, Switzerland, Vietnam, India, Peru
- Agreement (1 country) : Australia
- Negotiating (4 countries on six regions): TPP, EU, RCEP services and investment chapter (real agreement), Mongolia, Canada, Colombia, South Korea (negotiations suspended), GCC (Gulf Cooperation Council) (negotiations postponed)
- The agreement to start negotiations (1 country): Turkey



■ :Agreement
 ■ :Negotiation
 ■ :Issued

Strategy of ruling formation (ie. Successful standardization)



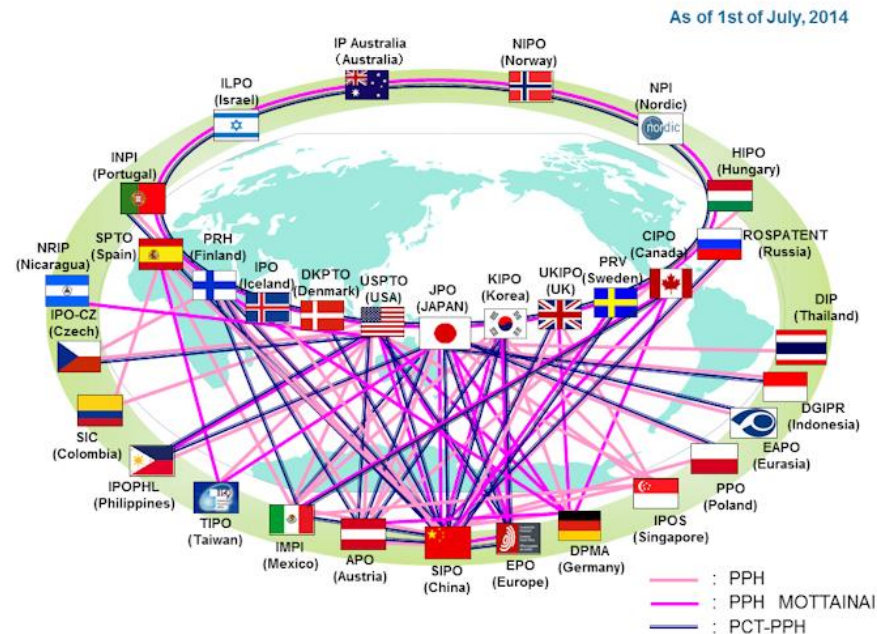
Policies for intellectual property partnering cooperation

1) Outline of Patent Prosecution Highway (PPH)

The Patent Prosecution Highway (PPH) is a framework in which an application whose claims have been determined to be patentable in the Office of First Filing (OFF) is eligible to go through an accelerated examination in the Office of Second Filing (OSF) with a simple procedure upon an applicant's request.

The PPH, through the exploitation of all the search/examination-related information of the OFF,

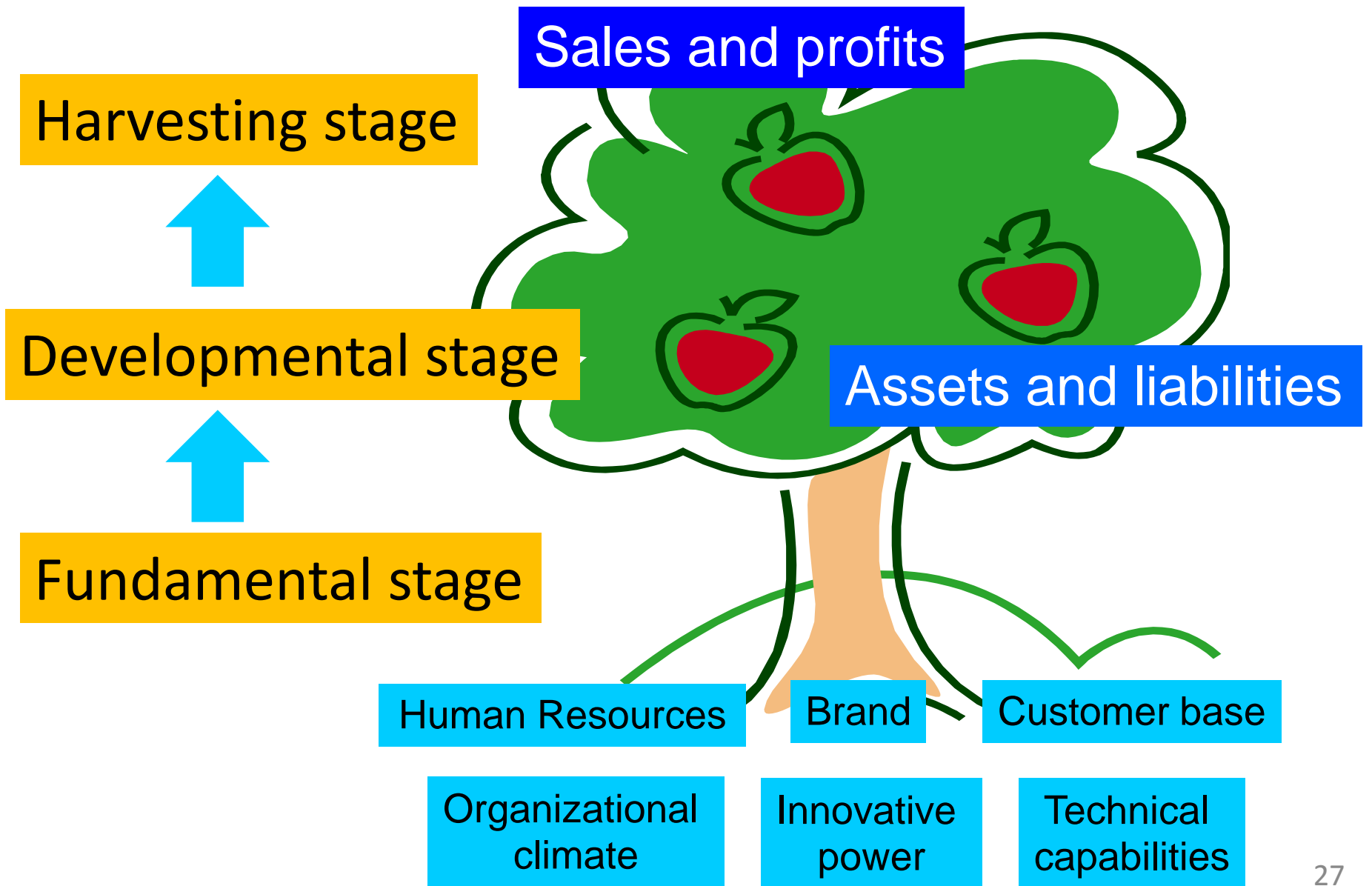
- (1) supports applicants in their efforts to obtain stable patent rights efficiently around the world and
- (2) reduces the search/examination burden and improves the quality of the examination of the major patent offices in the world.



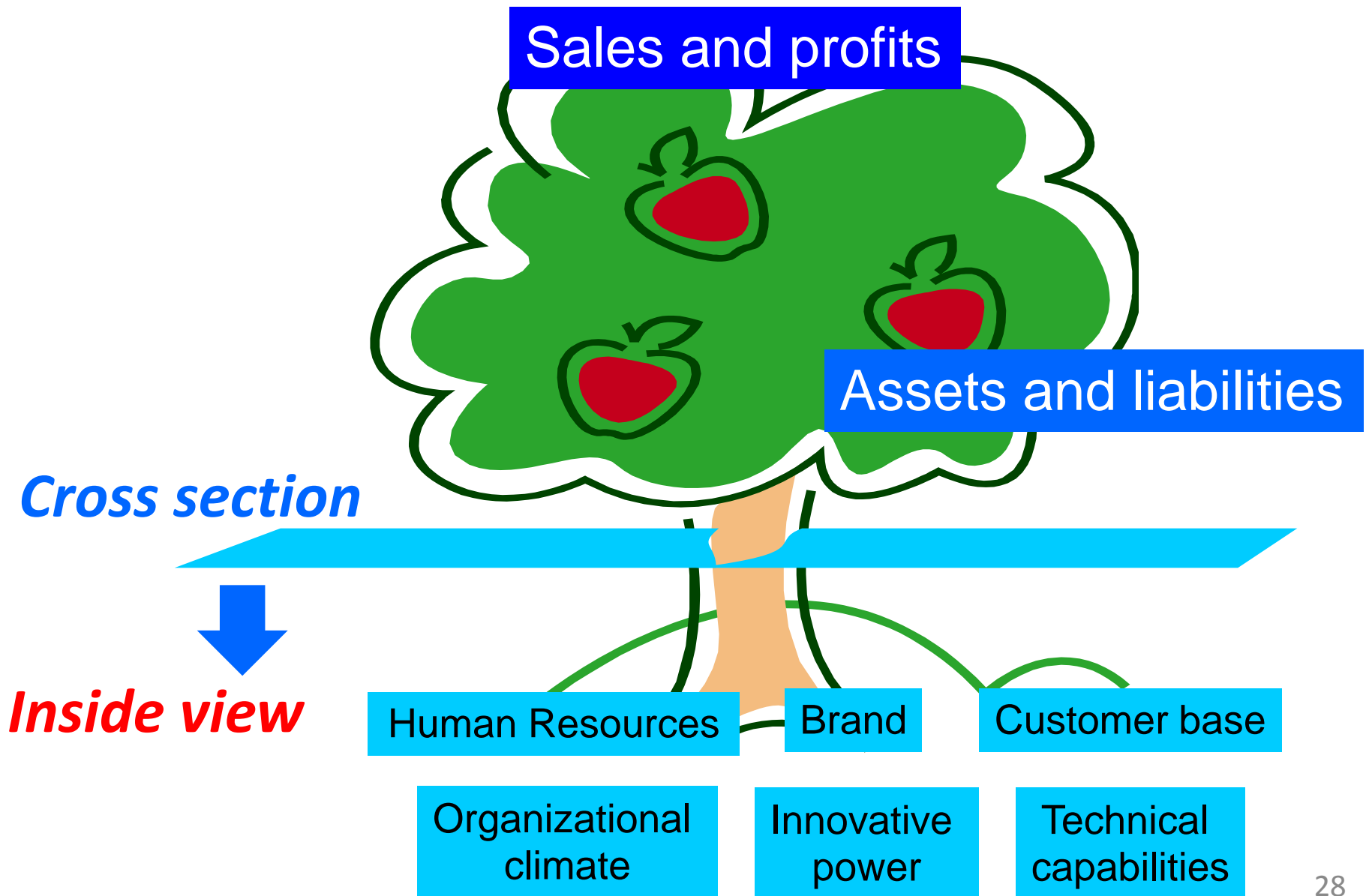
- 2) Use of (Madrid Protocol application) system and international trademark application by the WIPO

3. Intellectual Property Management System

Road to monetization from the Startup

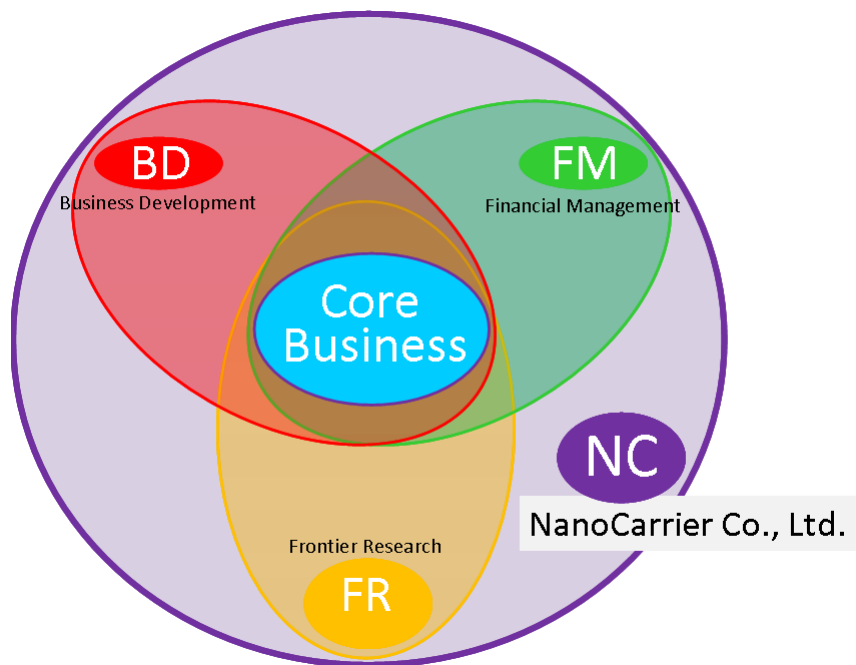


Contents of the stem in the fruit tree business

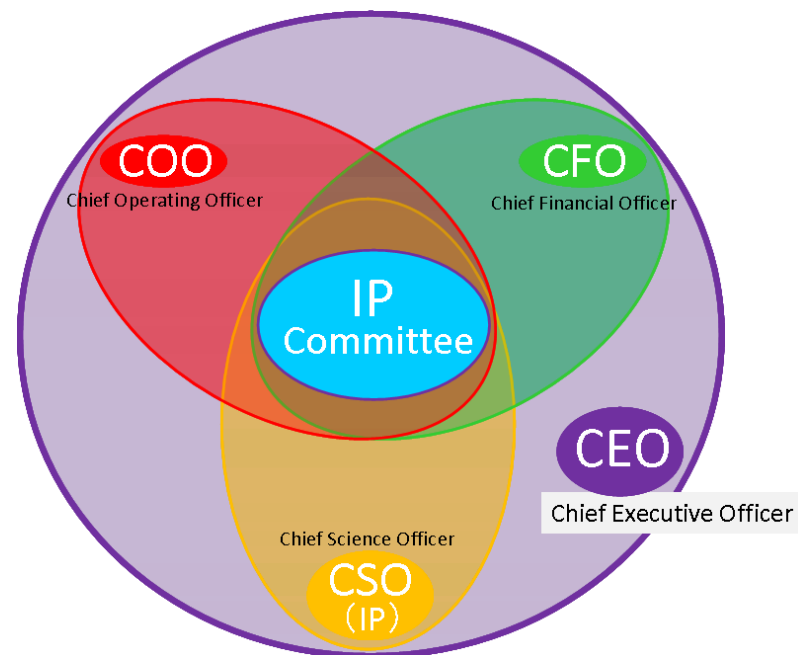


Contents of NanoCarrier tree's Stem

The intellectual property management system



Tight trinity collaboration
for the core business



Ideal form of knowledge
management-type organization
Build a system close to (trinity type)

CSO (chairman of the committee)

CEO

COO, CFO

Legal director, IP manager

Research director(s)

CSO (chairman of the committee)

CEO

COO, CFO

Legal director, IP manager

Research director(s)

**Any technology-centric SME
having similar IP committee could satisfy
the knowledge management organization ?**

CSO (chairman of the committee)

CEO (president of Licensing Executives Society Japan)

COO, CFO

Legal director, IP manager

Research director(s)

**Practical knowledge management
require senior executive
advanced mind of IP-oriented business**



THE LICENSING EXECUTIVES SOCIETY JAPAN



President
Ichiro Nakatomi, Ph.D.

Advancing the Business of Intellectual Property

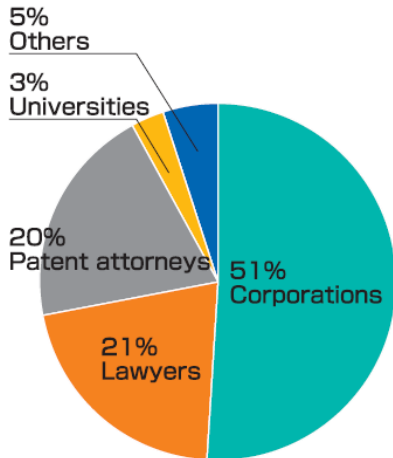
Licensing Executives Society Japan (LES Japan) is one of the member societies of Licensing Executives Society International (LESI), which is an international organization made up of 32 national/regional societies and has more than 10,000 members. The members consist primarily of people, such as corporate executives, leaders, those who do the actual work, and specialists in the legal field, such as lawyers and patent attorneys, who are involved in the licensing of intellectual properties, including technologies, patents, know-how, trademarks, software, digital contents, and technology transfers and technical cooperation; in addition to experts, such as people from academia and government service who have knowledge in these fields. It is a unique organization found nowhere else, where people having different careers can come under the same roof to interact and network.

Andean Community, Arab Countries, Argentina, Australia & New Zealand Austria, Benelux, Brazil, Britain & Ireland, Chile, China, Chinese Taipei, Czech Republic France, Germany, Hungary, India, Israel, Italy, Japan, Korea, Malaysia, Mexico, Philippines, Poland, Russia, Scandinavia, Singapore, South Africa, Spain & Portugal, Switzerland, Turkey, USA & Canada

■ Training and Educational Activities

- Case study seminars are held once a month, ten times a year, in Tokyo and Osaka, with lecturers being invited to conduct workshops on such specialized themes as intellectual properties, law, and business. In addition, informal gatherings are held after the seminars to give the participants and the lecturers an opportunity to deepen their friendship.
- In order to disseminate awareness and knowledge regarding licensing, four courses including basic level courses (Basic Licensing Course and Basic International Licensing Course), an intermediate level course (Practical Licensing Course), and an advanced level course (Negotiation Course), are offered at venues in Tokyo and Osaka to not only members of the society but also non-members.

Composition of Members (2013)



■ Working Group Activities

The following working groups have been established in the Kanto region and Kansai region. Each group decides independently what theme to study and holds seminars periodically.

• Economic assessment of intellectual properties (Kansai)

• Antimonopoly Act

• USA-related issues

• Studies of Asia-related issues

• Studies of judicial precedents (Kanto)

• Studies of judicial precedents (Kansai)

• Trade secrets

• Corporate law, intellectual property management

• Healthcare

• Network businesses

• Licensing and business management

• Making use of the Collaboration between industry, government, and academia

• Group Seminars (Kanto)

• Student business plan contest

■ Publications

- **LES JAPAN NEWS** (issued in Japanese, distributed four times a year)

The journal contains reports of member's activities, meetings and seminars, monograph and international issues in any licensing and protecting Intellectual Property and introduction of essay and new members.

- **Winds from Japan** (issued in English, distributed three times a year)

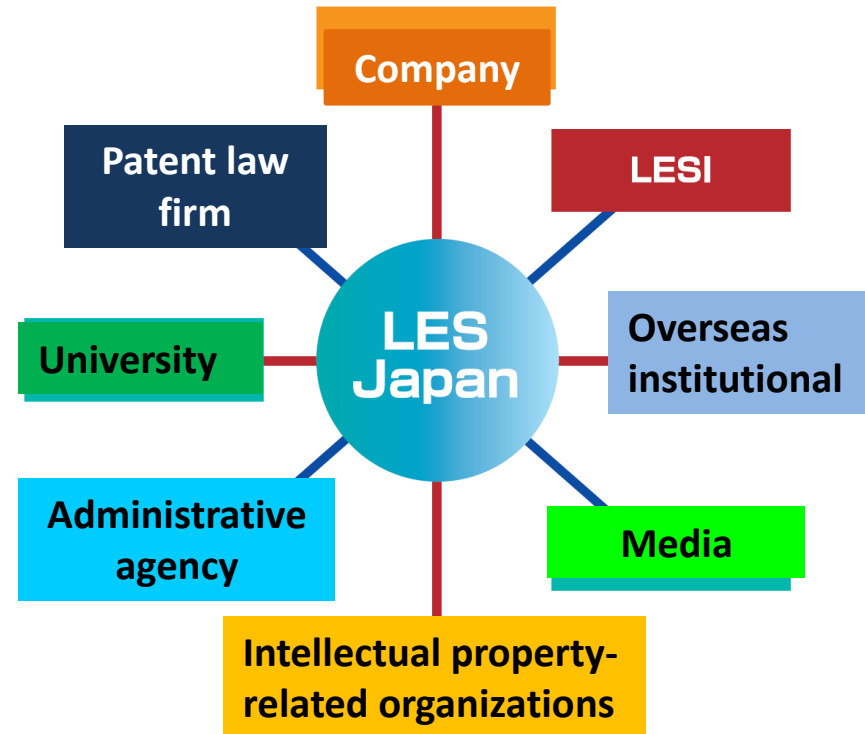
The newsletter is for overseas LES members and other licensing specialists concerning activities of LES Japan and developments in IP and licensing.

- **les Nouvelles** (issued in English, distributed four times a year)

The journal is designed to further the knowledge of the international societies members and others in improving their skills, techniques and knowledge in licensing and protecting Intellectual Property.



Networking



■ Annual Meetings, International Meetings

A summer symposium is held every year, where entrepreneurs as well as leaders and researchers from various industries, including those not related to intellectual properties, are invited to give special lectures on a wide range of themes to members, and the members can cultivate mutual friendship. Furthermore, the members are able to participate in international meetings, such as the LES International Conference and the APRC (Asia Pacific Regional Conference).



ADVANCING THE BUSINESS OF INTELLECTUAL PROPERTY GLOBALLY



November 5-6, 2014
Hotel Prima, Seoul



In addition to the continuation of the skills and the acquisition of expertise, LES will also help you build a business network.

Thank you for Your Attention



This presentation contains “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. These statements appear in a number of places in this presentation and include statements regarding the intent, belief or current expectations of the management of NanoCarrier Co., Ltd. (the “Company”) with respect to the Company’s business, results of operations and financial condition. In many cases, but not all, such words as “anticipate,” “believe,” “estimate,” “expect,” “forecast,” “intend,” “may,” “outlook,” “plan,” “probability,” “project,” “risk,” “seek,” “should,” “target,” “will” and similar expressions are used here in relation to the Company or its management to identify forward-looking statements. You can also identify forward-looking statements by discussions of strategies, plans or intentions. These statements reflect the Company’s current views with respect to future events and are subject to risks, uncertainties and assumptions. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, the company’s actual results may vary materially from those the Company currently anticipates. The Company disclaims any obligation to update, or to announce publicly any revision to, any of the forward-looking statements contained in this presentation to reflect future actual events or developments except as required by applicable law.

Contact

NanoCarrier Co., Ltd.

TEL: +81-4-7197-7621 E-mail: info@nanocarrier.co.jp