

# **Intellectual Property Management and Technology Transfer in Japan**

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# **1. The Patent System in Japan**

# Back ground

**After the collapse of the bubble economy in 1991, the Japanese economy entered a long-term recession.**

- Sustaining stable economic growth.
- Surviving intensifying global competitions / seeking for co-existence.
- Promoting innovation.
- Strengthening designing and branding power.

**Declaration: Japan as a *“Nation Built on Intellectual Property”***

“Japan sets a national goal to strengthen the international competitiveness of Japanese industries by strategically protecting and utilizing as intellectual properties the results of R&D and creative activities.”

by KOIZUMI Junichiro Prime Minister (2002/02)

# Types of Intellectual Property (IP) Rights

## Rights concerned with **intellectual creations**

- Patent Rights Protection of inventions for 20 years from filing
- Utility Model Rights Protection of ideas of the shape, *etc.* of articles for 10 years from filing
- Design Rights Protection of the design of articles for 20 years from registration
- Copyrights Protection of mental works such as literature, music, *etc.* and programming for 50 years after the death of the creator
- *Others*

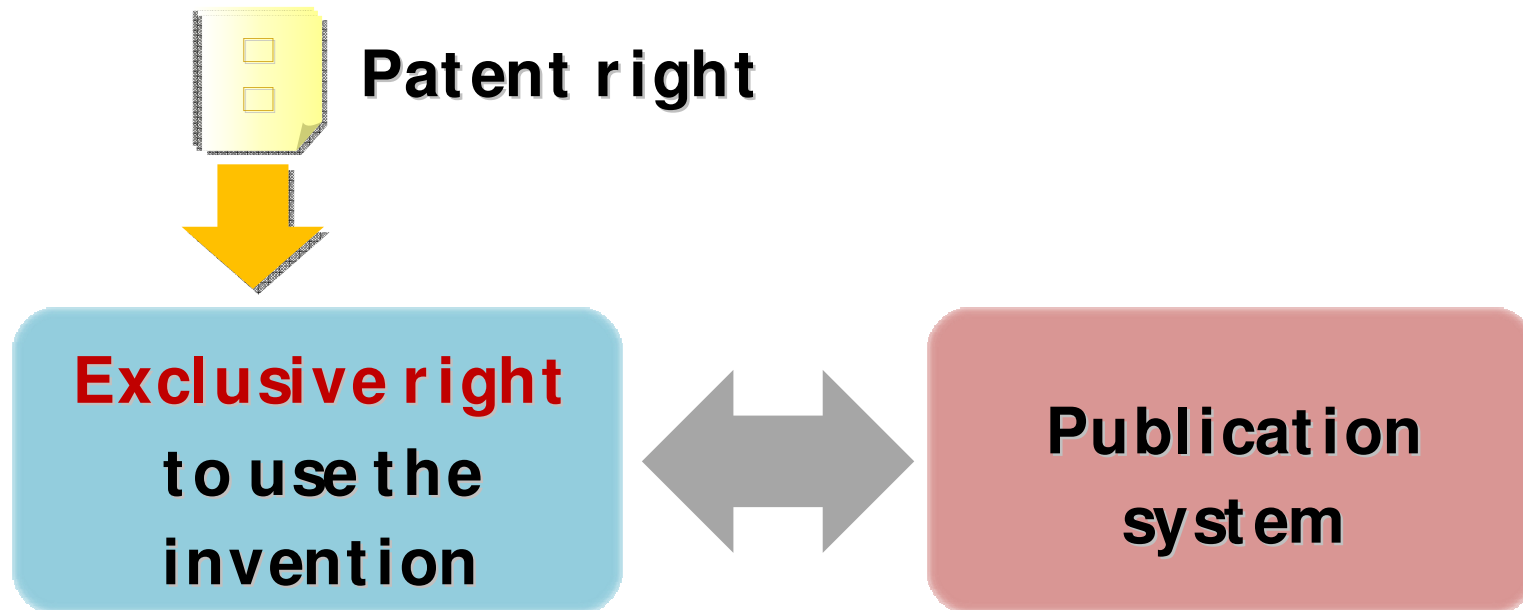
## Rights concerned with **business marks**

- Trademark Rights Regulation of trademarks for commercial goods/service for 10 years from registration
- *Others*

# Patent Rights System in Japan

## Purpose of Japanese patent law

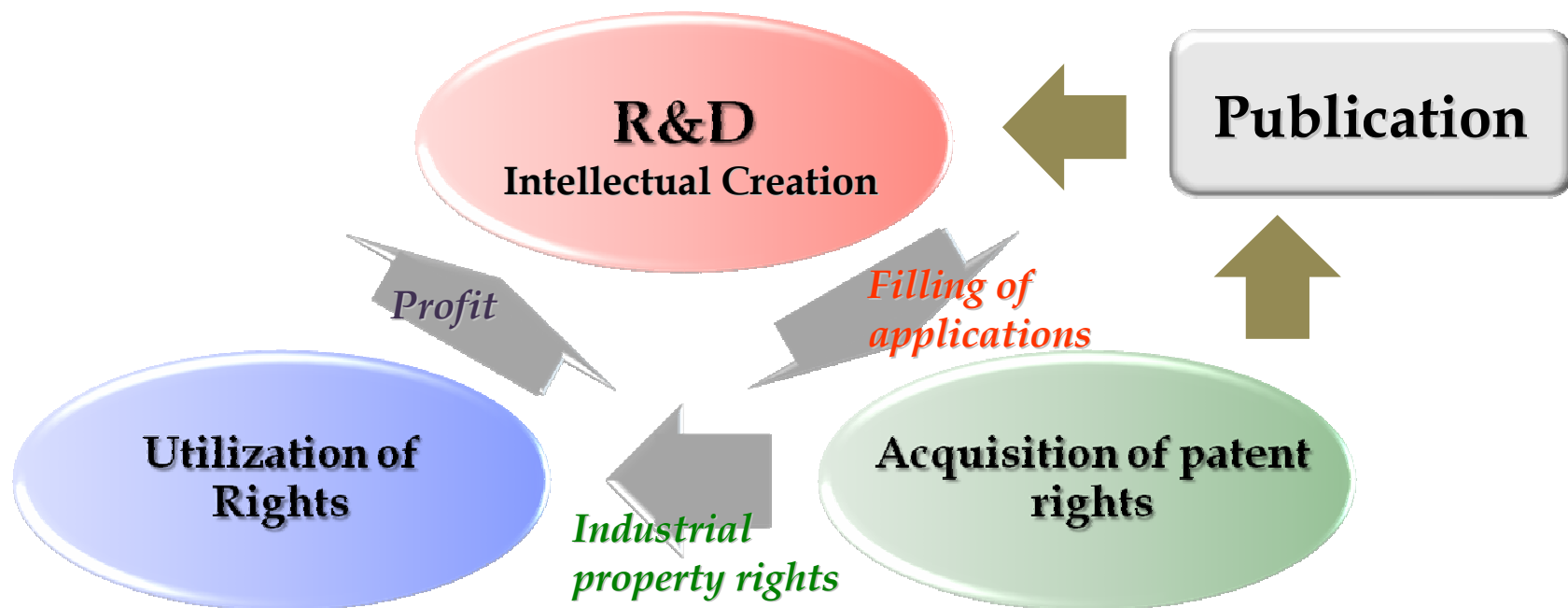
The patentee is awarded the right to exclusively exploit the invention in return for making the technology accessible by the public.



# Patent Rights System in Japan

## Intellectual Creation Cycle

The industrial property rights system is the driving force of the cycle of intellectual creation in which patent rights are granted for R&D results, R&D costs are recovered through the utilization of industrial property rights, and funds are reinvested into new R&D.

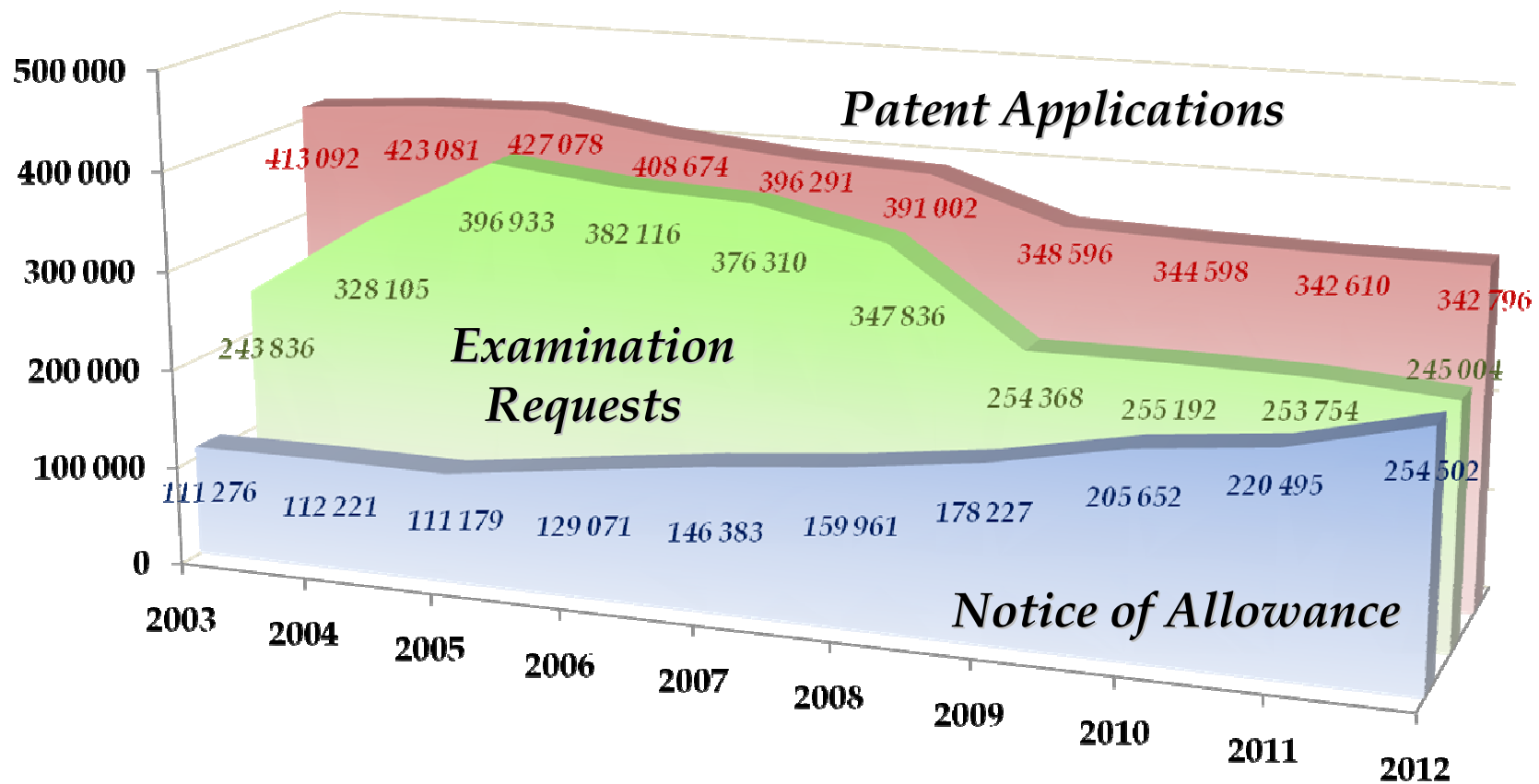


## **2. The Status of Patent Applications in Japan**



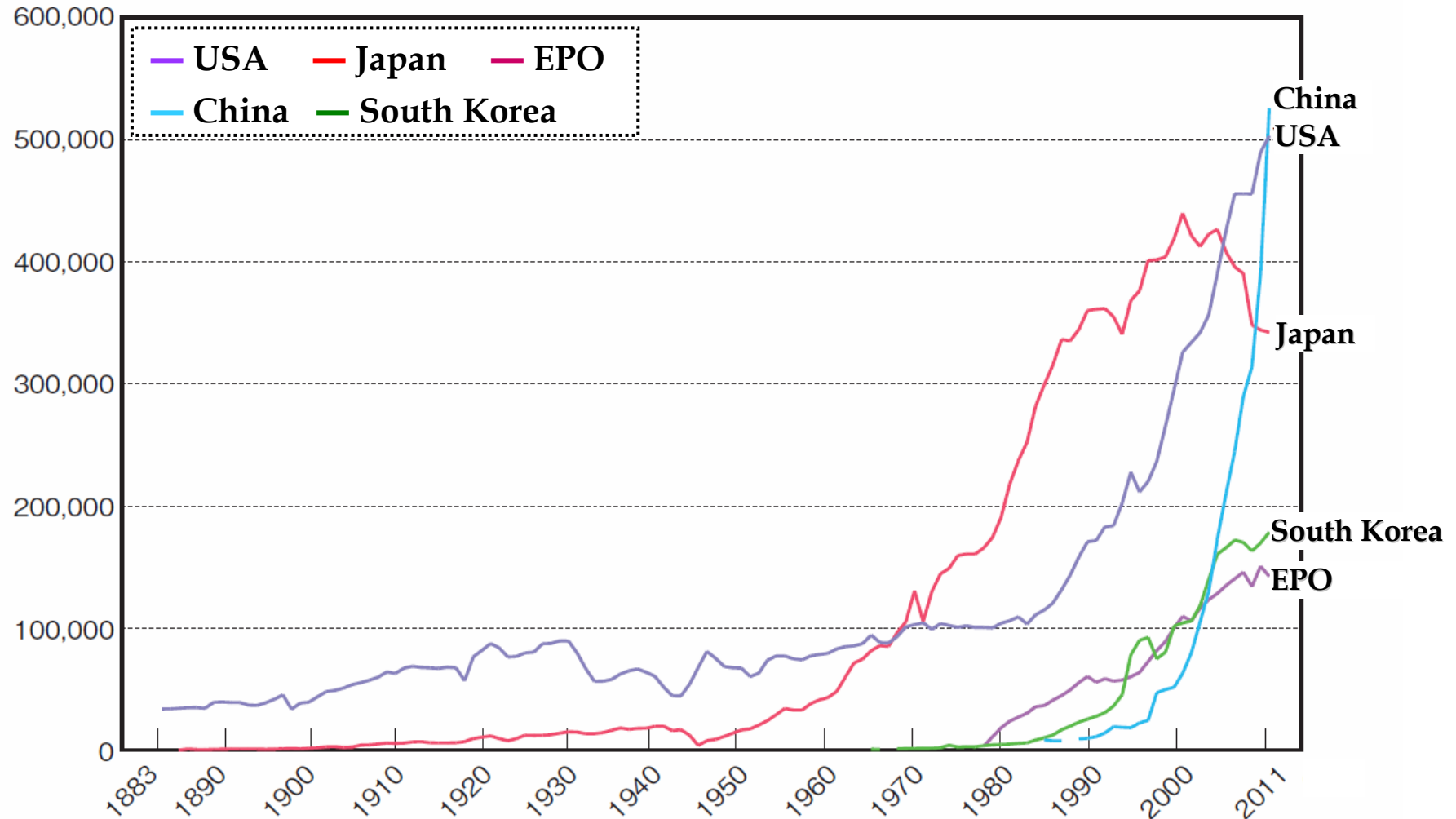
# The Status of Patent Applications in Japan

Changes in the Number of Patent Applications, etc.





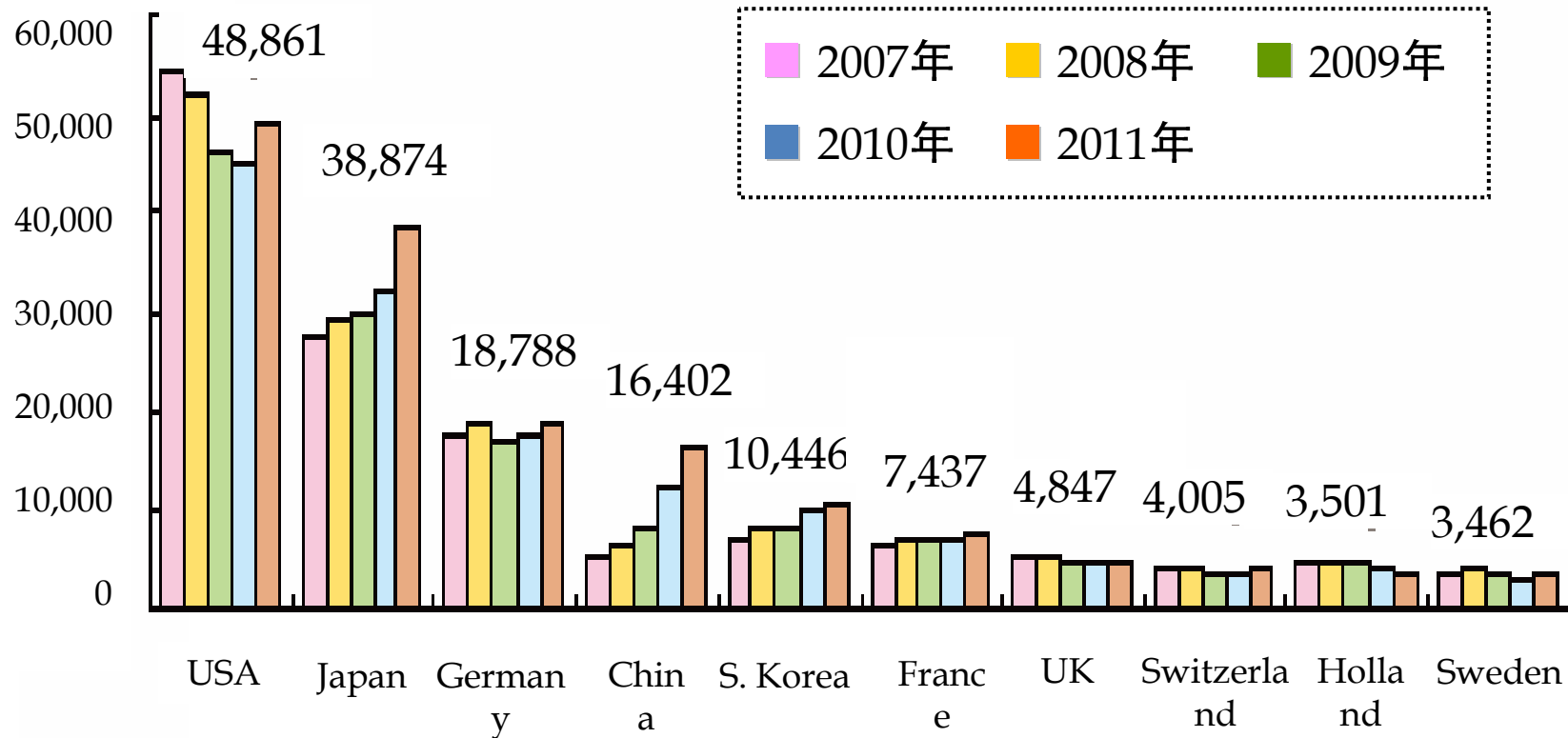
# The Trend of Patent Applications in the World



The numbers of applications are all showing an increasing trend, among which the increase in China

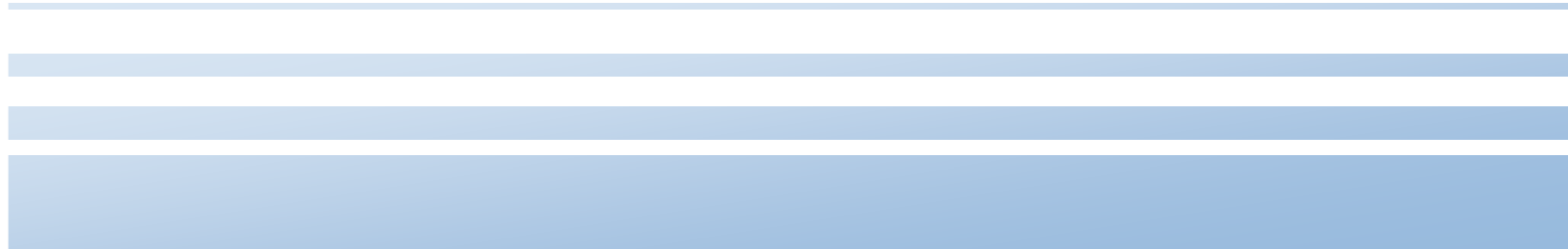
# The Status of International Patent Applications

## The Number of PCT Applications by Country of Residence of Applicants



Source: "Chapter 1: Current Status of Applications, Registrations, Examinations, Appeals, and Trials in and outside Japan." Japan Patent Office Annual Report 2012. p. 7.

# **3. Patent Strategy at Japanese Companies**



# The Roles of IPs in Companies' Activities

## The Meaning of Patent Acquisition for Companies

**Patent Right:** The exclusive right to a new technology (invention) for a certain period of time

— That is, the right to keep others from using the technology!  
(Not acquired in order to secure your use of the technology)



- To safely manufacture and distribute the product that you developed  
File a patent application to implement your own technology.
- **To exclude competitors from entering your business**  
File a patent application to block competitors' entries.

**Patent searches** are extremely important!

# The Roles of IP in Companies' Activities

## Intellectual Property Policy at Companies <EXAMPLE>

### Authorized Patent:

- Basically, the company tries to commercialize the patent by itself or in cooperation or jointly with others.

- Then, the company considers cross-licensing with others.

• For those patents concerning the public interest, the company does not monopolize but seeks for licensing.

• For those technologies that the company hopes to keep them absolutely confidential, it strictly maintains them as know-how.

*applications.*

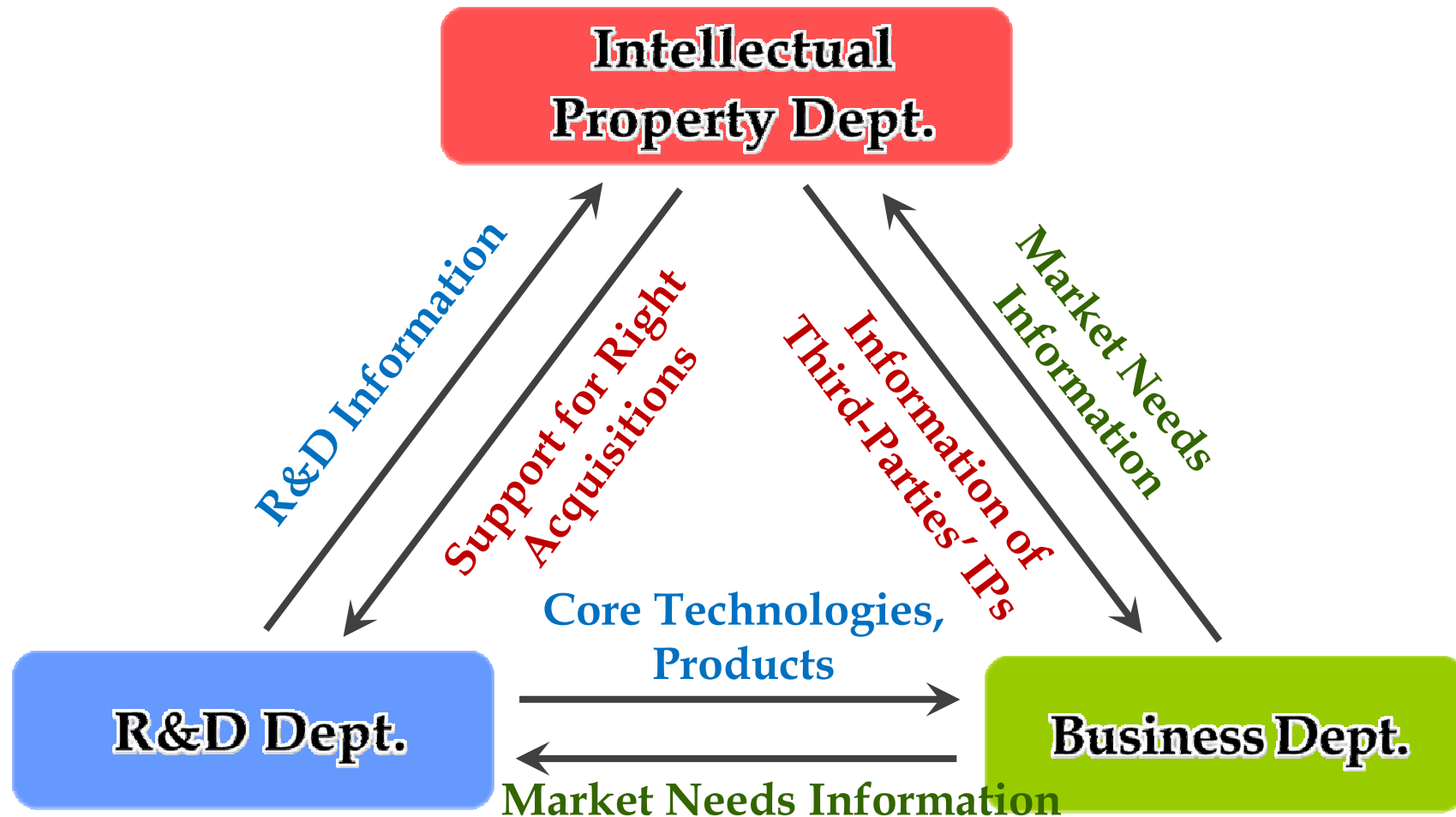
→ *No patent*



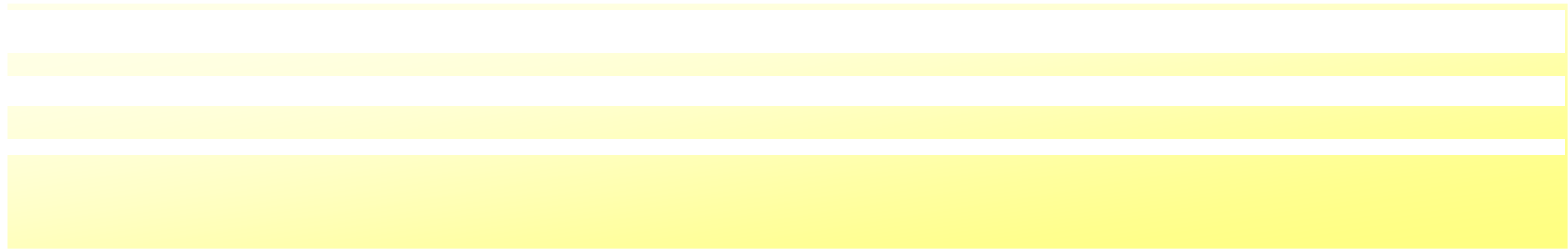
Exploitation is the basic premise for patent application.

# Interdepartmental Management on IPs

**To Develop a Package of Strategies on Business, R&D and Intellectual Properties (IP).**

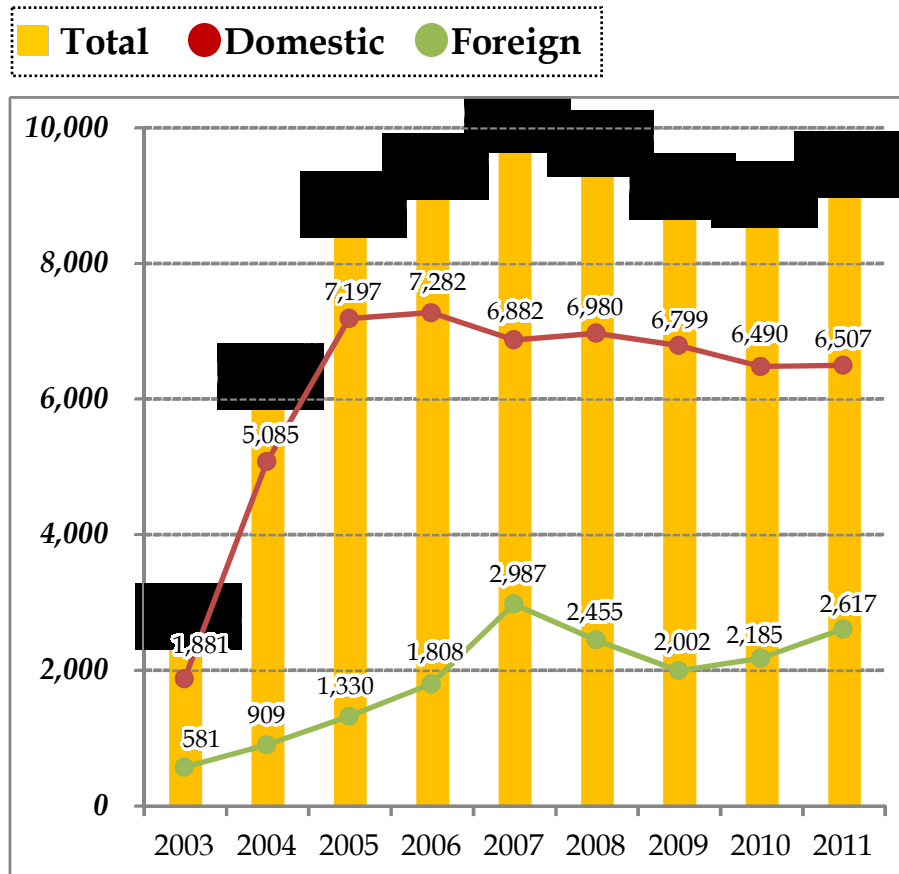


# **4. Acquisition of IPs at Universities**

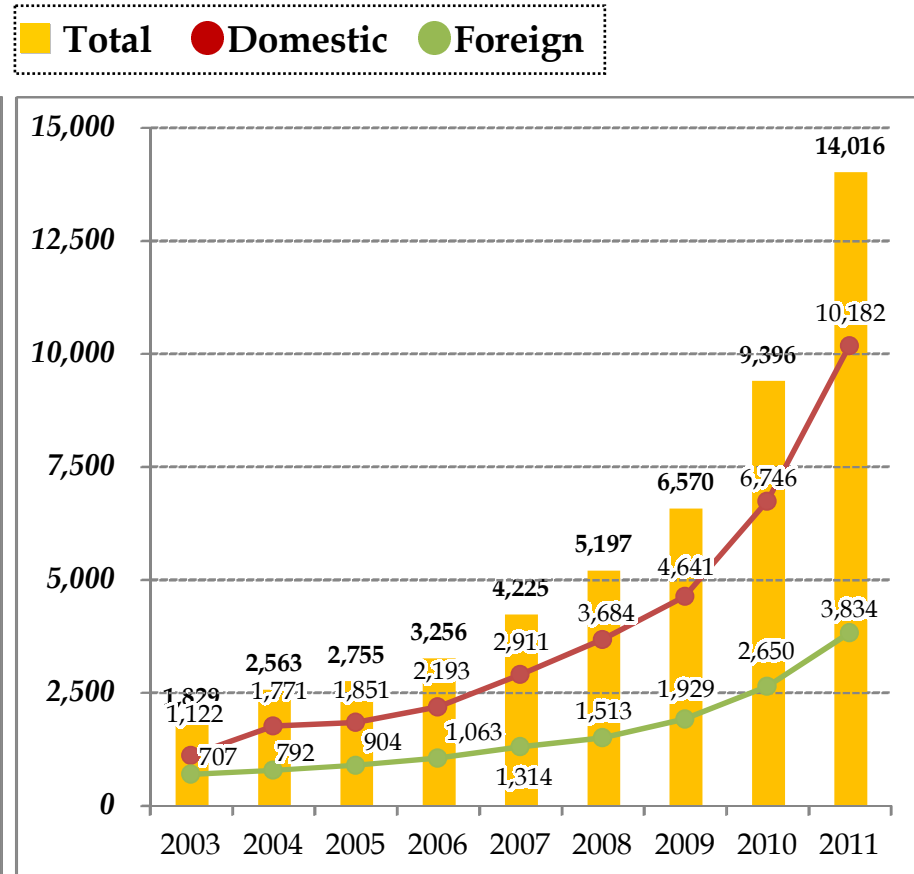


# The Status of IPs at Universities, etc.

Numbers of Patent Applications



Number of Univ./College-Owned Patents

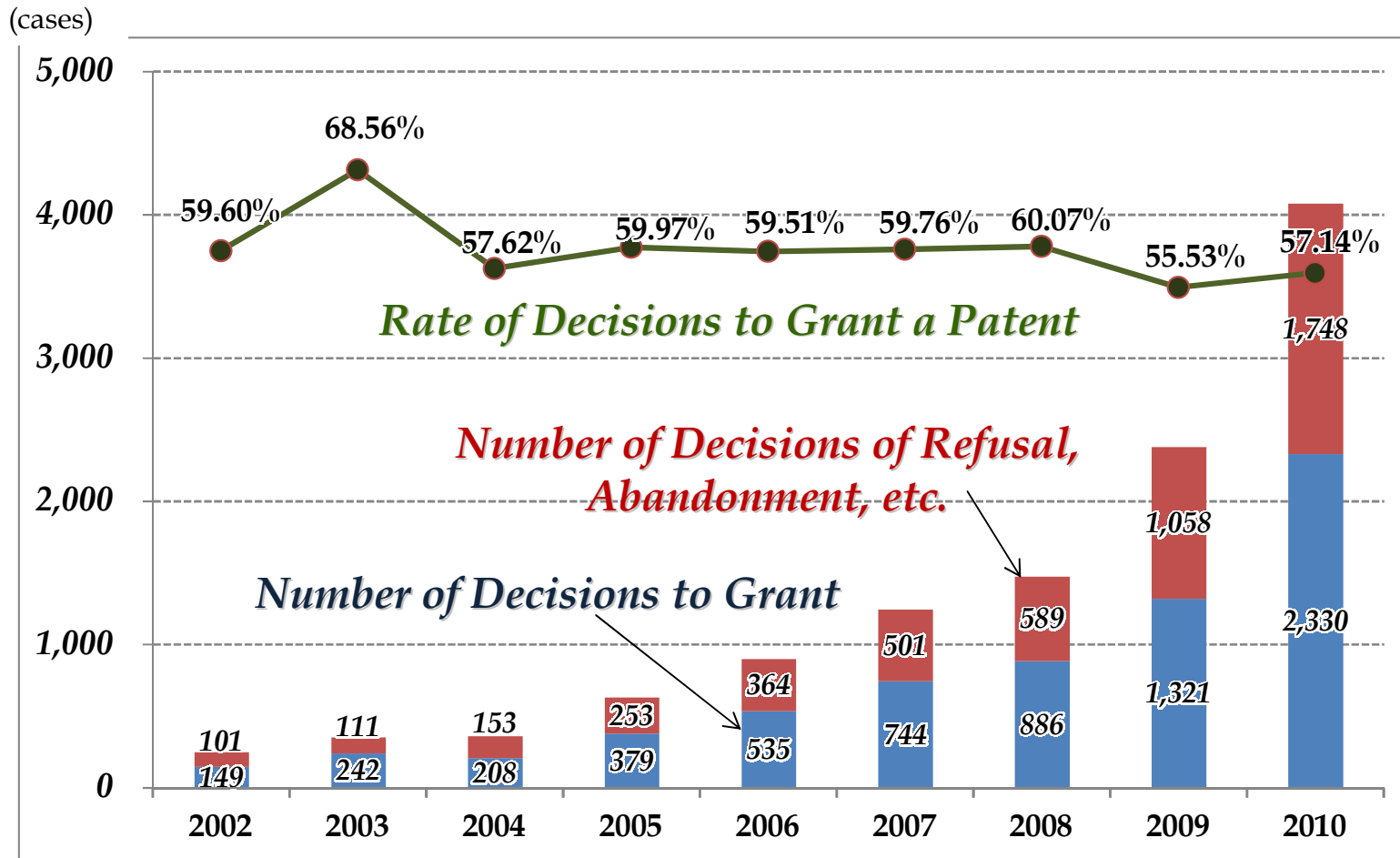


Source: MEXT. "Regarding Operational Situation of Industry-Academia Collaboration (each FY)." JST Industry-University Cooperation Databook (2012-2013).



# The Applications from Universities / TLOs

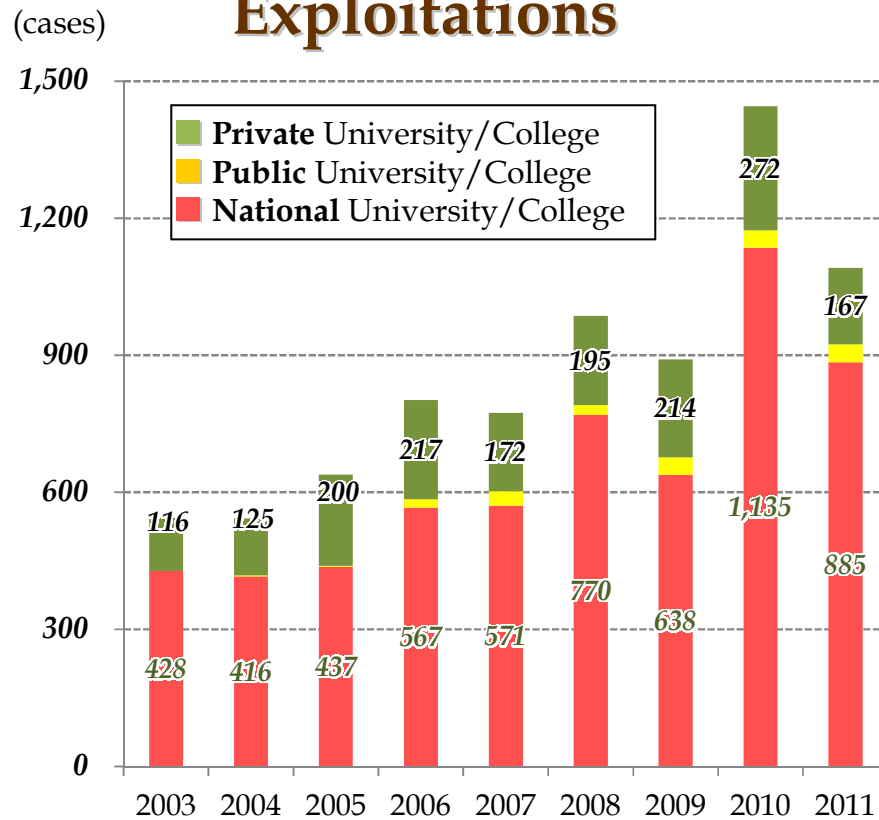
## Status of the **Decision of Patent** Filed by Universities/ TLOs



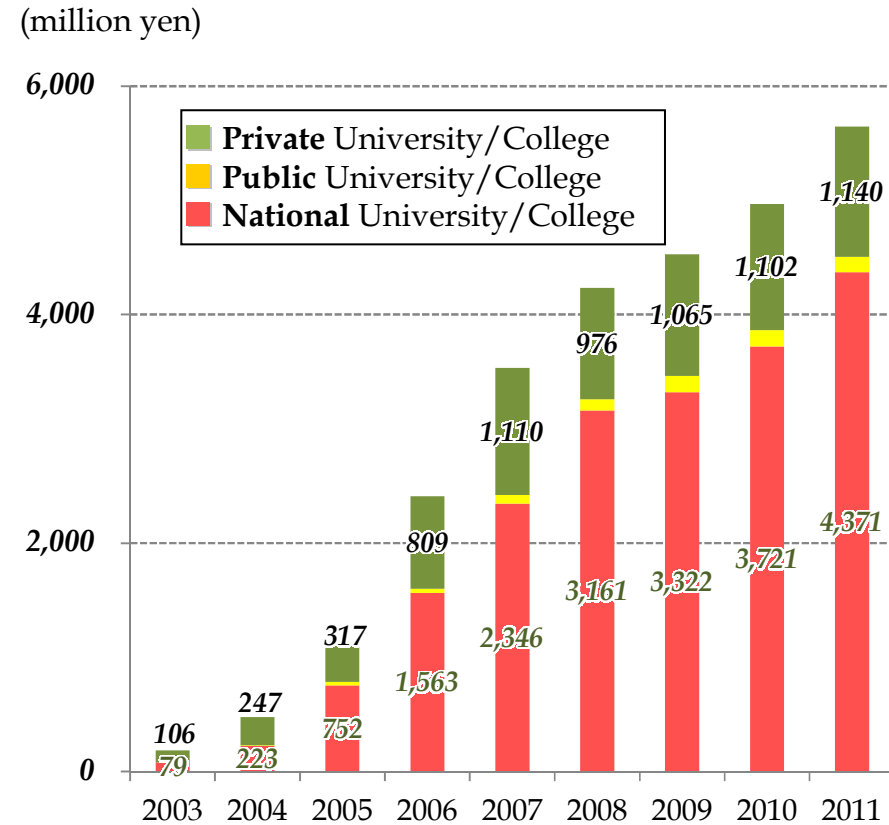
The rate of decisions to grant a patent from all of sectors in Japan has shifted around 50-55%.

# The Status of IPs at Universities, etc.

## Number of Patent Exploitations

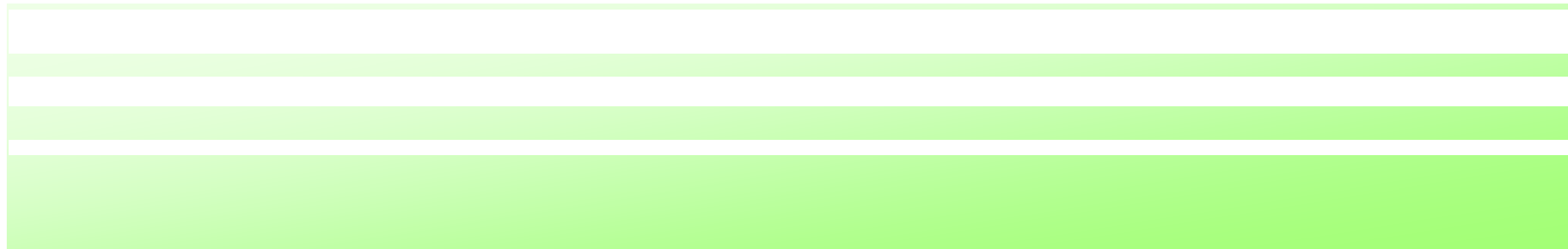


## Patent Revenue



The number of patent exploitations and the amount of patent revenue are steadily increasing. On the other hand, while the number of total applications is decreasing, the numbers of foreign patent applications and owned foreign patents are on the rise, resulting in increase in maintenance costs.

# **5. IP Management and Technology Transfers at Universities**



# The Premises for Technology Transfer

## The Significance of University Patents

**Universities have considerably strong potential, and they carry out basic researches that companies can hardly do.**

## Objectives of Patent Acquisition by Universities

- To promptly **return to society the benefits of the research results** obtained at universities --- to make the universities' inventions broadly utilized in society.
- To develop universities' research results into larger researches by licensing them to companies for commercialization.
- To provide decision material for companies to invest money in industry-academia collaborative researches.

# Issues of University IPs — General

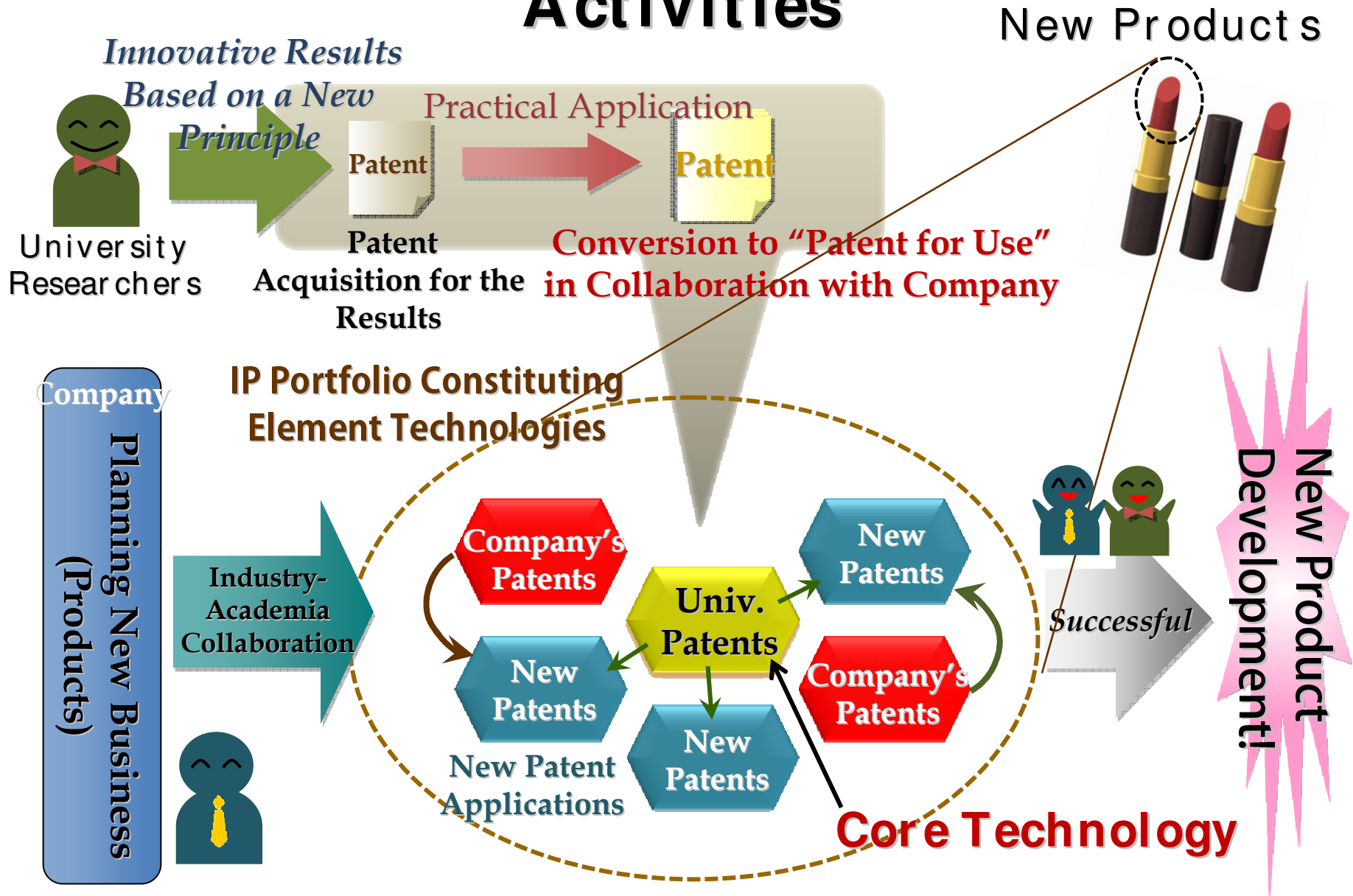
- **Universities are not patent exploiters themselves --- not business operators. Therefore their patents are not applied for with a view of exploitation.**
  - In case of companies, they obtain rights only of those technologies that are needed for product development, or patent exploitation.
  - Being responsible for offering “education” and pursuing “research,” universities have their main purpose to make public the accomplishments of the research as soon as possible – to avoid loss of novelty.
- **University patents, whose working examples are not obtained more than research results, are low in exclusivity compared with companies’ patents --- rehashing of research papers.**

# The Significance of Technology Transfer

- University patents are “diamonds in the rough,” which **must shine if properly polished.**
- But universities have neither factories nor good knowledge of markets. So the diamonds will not shine as far as they are polished inside campus only by university faculty.
- It is expected that universities’ results (patents) will be polished (developed for utilization) by companies as business operators.

**University researchers are encouraged to actively participate in technology transfer programs so as to contribute to society with their inventions too.**

# Scheme of Technology Transfer Activities

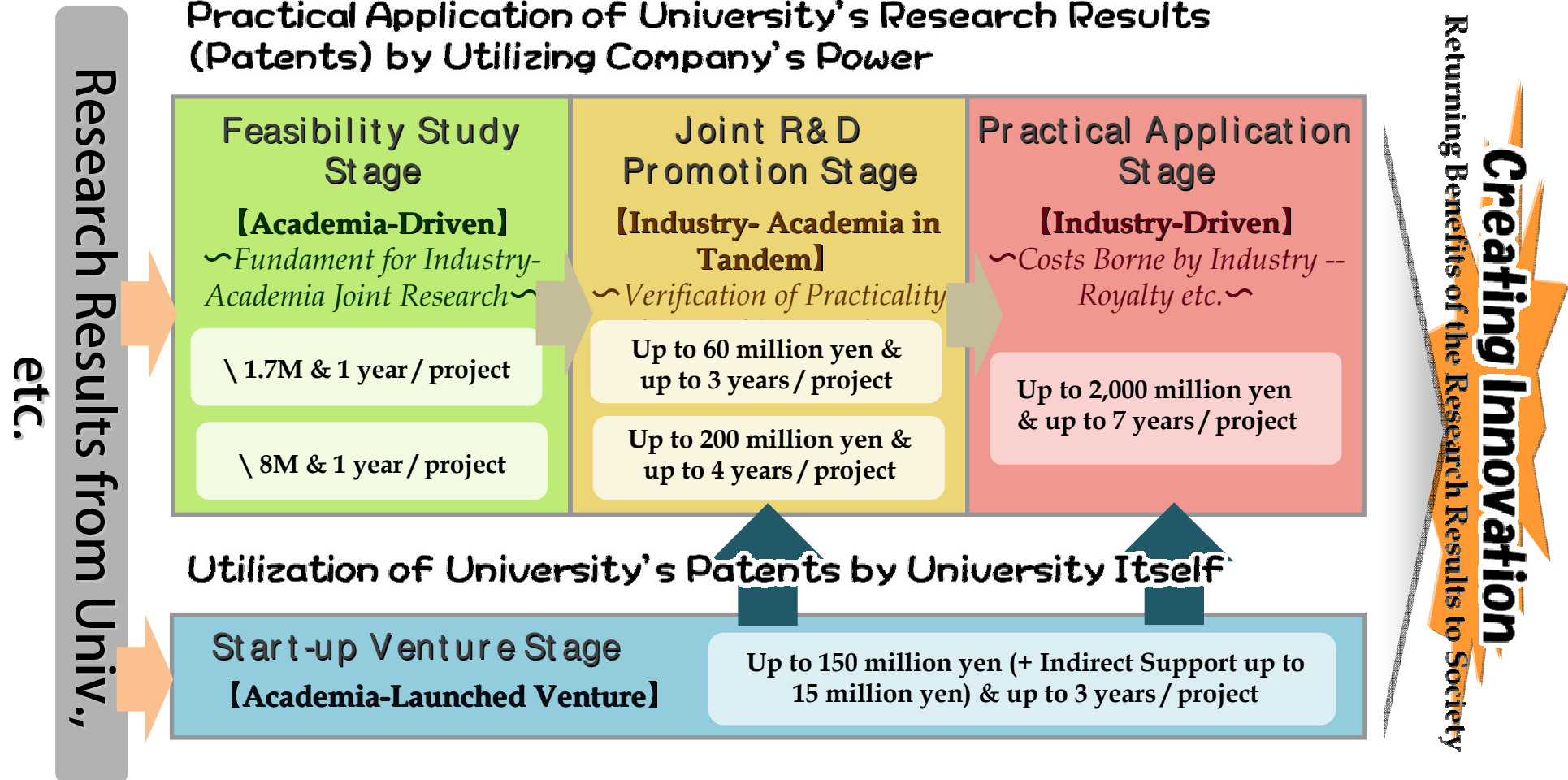


# About A-STEP

A-STEP (Adaptable & Seamless Technology Transfer Program)

- • • The orthodox support program for technology transfers which has the longest history in Japan.

Practical Application of University's Research Results (Patents) by Utilizing Company's Power





# **6. Patent Valuation**

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# How to evaluate the value of IPs

- ✚ **The field of patent valuation is not developed in Japan yet.**

- ✚ **Patent valuation has been studied as a new category of service from patent attorneys.**

The value of IP is different from person to person who needs the relevant technology or not.

Due to a complex combination of various IPs, it is important to consider relations between IPs.

- ✚ **There is patent rating service in the private sector to score patent values mathematically for clients.**

Scoring the notability of each patent based on its prosecution

history after application

- Applicant's motivation for patent acquisition – accelerated examination request, international application, etc.

- The patent examiner's recognition of the patent as prior art – the number of reasons for refusal.

- Attention from competitors – invalidation trials etc.

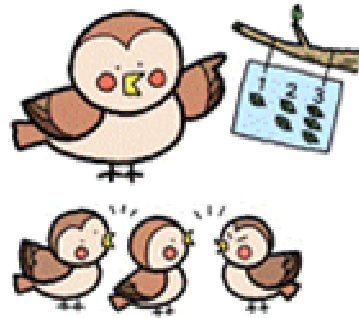
# **JST's Evaluation Concept on University IPs**

- **It is more difficult to evaluate the values of university IPs, which are based on basic researches.**
- **The IPs to receive support for patent applications are selected by the IP Judging Committee comprising experts from outside JST.**

## **【Evaluation Points】**

- 1. The inventions which are based on innovative concept and expected to achieve a significant technical advancement.**
- 2. The inventions which have potential to create industrial infrastructures in Japan in the future.**
- 3. The inventions which have potential to create a new industry.**
- 4. The inventions which have potential to achieve a significant enhancement of conventional industrial technologies.**

**Thank you !!**



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